



United States
Department of
Agriculture

Forest
Service

Pacific
Northwest
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File Code: 1570

Date: June 27, 2012

Mr. Fred Warner, Jr.
Commission Chair
Baker County Commissioners
1995 Third Street
Baker County, OR 97814

**CERTIFIED MAIL – RETURN
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Dear Mr. Warner:

This constitutes my decision, pursuant to 36 CFR 215.18(b)(1), on your appeal (#12-06-00-479-215) of Wallowa-Whitman National Forest Supervisor Monica Schwalbach's Record of Decision for the Snow Basin Vegetation Management Project Final Environmental Impact Statement.

Background

On March 19, 2012, Monica Schwalbach, Forest Supervisor for the Wallowa-Whitman National Forest signed a record of decision (ROD) for the Snow Basin Vegetation Management Project Final Environmental Impact Statement (FEIS). Her decision to implement Alternative 3, as modified:

- Commercial harvests approximately 11,013 total acres using a combination of intermediate thinning (10,257 acres), overstory removal (718 acres), and aspen restoration conifer overstory removal (39 acres). Produces a potential yield of 48 MMBF. Logging systems would be ground based and skyline.
- Treats fuels associated with activity fuels including: Grapple pile and burn (4,577 acres), hand pile and burn (124 acres), and underburn (10,322 acres) will be utilized. Prescribed underburning only would occur on 3,972 acres.
- Retains trees 150 years old or older and harvests only grand fir 21 inches DBH and greater, except in situations where there is excessive mistletoe infestation impeding development of healthy conditions in Douglas-fir, or where conifers are impeding health of aspen stands.
- Thins within approximately 38 acres within Riparian Habitat Conservation Areas (RHCAs).
- Includes approximately 38.75 miles of road reconstruction, 5.3 miles of new temporary road construction, and the use of 3.7 miles of existing non-system routes.
- Makes available some units and piles for firewood.

Pursuant to 36 CFR 215.17, an attempt was made to seek informal resolution of the appeal. The record indicates that informal resolution was reached on several appeal points, although appellant did not withdraw appeal points regarding the RODs adequate reduction of fire risk and adequate response to the purpose and need element of economics.

My review of the appeals has been conducted in accordance with 36 CFR 215.18, *Formal review and disposition procedures*. I have reviewed the appeal record, including the recommendations of the Appeal Reviewing Officer. A copy of her recommendation is enclosed. The Appeal Reviewing Officer focused her review on the appeal record and the issues that were raised in all of the appeals.



Appeal Decision

After a detailed review of the record and the Appeal Reviewing Officer's recommendation, I affirm the Responsible Official's decision, with the instruction to clarify the silviculture prescription for the 38 acres of riparian thinning in order to ensure that riparian management objectives are being met for the Snow Basin Vegetation Management Project and deny your requested relief. This decision constitutes the final administrative determination of the Department of Agriculture [36 CFR 215.18(c)].

A copy of this letter will be posted on the national appeals web page at <http://www.fs.fed.us/appeals>.

Sincerely,

/s/ Nora B. Rasure (for):

KENT P. CONNAUGHTON
Regional Forester

Enclosures

cc: Debbie Anderson
Dea Nelson
Melissa A Shelley



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Date: June 27, 2012

Route To:

Subject: Appeal Recommendation, Snow Basin Vegetation Management Project

To: Regional Forester, R6

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- Thins within approximately 38 acres within Riparian Habitat Conservation Areas (RHCAs).
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- Makes available some units and piles for firewood.

A total of ten appeals were filed. One appellant, the Union County Commissioners, did not provide timely comments to the DEIS; however, their concerns were similar in nature to those of the Baker County Commissioners and other appellants, whose appeal points were addressed in my response. The other nine appellants include: Carmelita Holland (#12-06-00-463-215), who requested that the decision be remanded; Lyle Defrees (Baker County Private Woodlands Association - #1206-00-477-215), who requested that Alternative 3 be changed to remove all dwarf mistletoe infected trees and to all ponderosa pine over 21 inches in diameter to be harvested if good silviculture management warranted it; Arvid Anderson (#12-06-00-478-215), who requested that Alternative 2 be selected; Fred Warner, Jr. (Baker County Commissioners - #12-06-00-479-215), who requested that the decision be remanded; Lindsay Warner (Boise Cascade - #12-06-00-483-215), who requested that the Forest implement the project with a



supplement to the ROD with additional volume, such as including the regeneration cuts in the original DEIS, removing additional volume from wildlife corridors, and removing large trees infected by mistletoe; Irene Jerome and Tom Partin (American Forests Resource Council - #12-06-00-484-215), who requested relief similar to that requested by Boise Cascade; Hells Canyon Preservation Council (#12-06-00-485-215), who requested that the ROD be withdrawn and a supplement prepared that addressed their concerns and complied with applicable law, regulation and policy; League of Wilderness Defenders/Blue Mountain Biodiversity Project (#12-06-00-486-215), who requested relief similar to that requested by Hells Canyon Preservation Council; and Dick Fleming (Stewards of Americas Resources - #12-06-00-487-215), who requested that the ROD be remanded and the project be revised to allow the accomplishment of the original goals of the project.

Pursuant to 36 CFR 215.17, attempts were made to seek informal resolution of the appeal. The record indicates that informal resolution was reached on some appeal points with Lyle Defrees, Arvid Anderson, Fred Warner, Jr., Lindsay Warner, and Irene Jerome and Tom Partin. The appeal points that were withdrawn by the appellants are not included in my responses to the appeal issues that were raised. Dick Fleming, who participated in resolution meetings, did submit a letter stating he was not withdrawing his appeal. Informal resolution was not reached with the remaining appellants.

Review and Findings

My review was conducted in accordance with 36 CFR 215.19 to ensure that the analysis and decision is in compliance with applicable laws, regulations, policies, and orders. The appeal record, including the appellant's issues, has been thoroughly reviewed. Having reviewed the FEIS, ROD and the appeal record as required by 36 CFR 215.19(b), I conclude the following:

1. The decision clearly describes the actions to be taken in sufficient detail that the reader can easily understand what will occur as a result of the decision.
2. The selected alternative will accomplish the purpose and need that was established in the FEIS. The purpose and need stated in the FEIS reflects consistency with direction in the Wallowa-Whitman National Forest Land and Resource Management Plan (LRMP), as amended.
3. The decision is consistent with policy, direction, and supporting evidence. The record contains documentation regarding resource conditions and the Responsible Official's decision document is based on the record and reflects a reasonable conclusion. I did, however, find that the silviculture prescription for the 38 acres of thinning in riparian habitat conservation areas could be clarified, so that it is clear how attainment of riparian management objections are being met.
4. The record reflects that the Responsible Official provided adequate opportunity for public participation during the analysis and decision making process. The Responsible Official's efforts allowed interested publics, including the appellants, the opportunity to comment and be involved in the site-specific proposal.

After considering the claims made by the appellants and reviewing the record, I found that the Responsible Official conducted a proper and public NEPA process that resulted in a decision that is consistent with the Wallowa-Whitman National Forest LRMP, as amended. I found no violations of law, regulations, or Forest Service policy.

Recommendation

After reviewing the appeal record, I recommend affirming the decision, with an instruction. I would like to see clarity in the silviculture prescription regarding the 38 acres of thinning in riparian habitat conservation areas and how thinning will help attain riparian management objectives. I recommend instructing the Responsible Official to document this in an addendum to the silviculture prescription and to make this addendum available to appellants via posting on the Forest's website for the project. Overall, I believe that the project documentation adequately supports the Forest Supervisor's decision with regards to all appeal points raised by the appellants. Enclosed with this memo are my responses to each appeal issue.

/s/ Laura Jo West
LAURA JO WEST
Forest Supervisor

cc: Debbie Anderson

Snow Basin Vegetation Management Project Final Environmental Impact Statement (FEIS)
Wallowa-Whitman National Forest
Appeal Statements and Responses

Appellant	Appeal Number
Carmelita Holland (CH)	12-06-00-463-215
Lyle Defrees, Baker County Private Woodlands Association (LD)	12-06-00-477-215
Arvid Andersen (AA)	12-06-00-478-215
Fred Warner, Jr., Baker County Commissioners (BCC)	12-06-00-479-215
Lindsay Warness, Boise Cascade (BC)	12-06-00-483-215
Irene Jerome and Tom Partin, American Forests Resource Council (AFRC)	12-06-00-484-215
Hells Canyon Preservation Council (HCPC)	12-06-00-485-215
League of Wilderness Defenders/Blue Mountain Biodiversity Project (LOWD)	12-06-00-486-215
Dick Fleming, Stewards of Americas Resources (SOAR)	12-06-00-487-215

Silviculture Prescription/Diameter Limits/Age Limits/HRV

Appellant Statement #1: Appellant states that much more grand fir should be cut and that the 21 inch diameter at breast height (DBH) rule has turned the Wallowa-Whitman into a grand fir forest. Appellant further states that the proposed prescriptions will not lessen the mistletoe problem. CH at 1.

Response: I find that the Responsible Official selected an alternative that removes some grand fir over 21 inches in diameter, while leaving other trees to provide for wildlife and other habitats and I find that the prescriptions will lessen mistletoe levels.

The Code of Federal Regulations (CFRs) at 36 CFR 220.4(c) requires the Responsible Official to complete the environmental document review before making a decision on the proposal, consider the environmental documents, public and agency comments (if any) on those documents, and agency responses to those comments; include environmental documents, comments, and responses in the administrative record, consider the alternatives analyzed in environmental document(s) before rendering a decision on the proposal, and make a decision encompassed within the range of alternatives analyzed in the environmental documents. In addition, the regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 1508.7 describes how the agency will consider cumulative effects.

The Responsible Official has the latitude to select any alternative described in the FEIS. The decision framework documented in the FEIS at 14 and 15 and in the Record of Decision (ROD) at 4 outlined the criteria that the Responsible Official used to make her decision. After completing the FEIS, the Responsible Official selected Alternative 3 and based her selection in part on how Alternative 3 removed grand fir infected by mistletoe so that mistletoe levels would be within natural ranges of a fire maintained landscape and that mistletoe infections would exist at an endemic level without threatening the development and maintenance of late and old structure (LOS) (which is part of the purpose and need). FEIS at 6 and 7. The Responsible Official also considered how harvest of trees greater than 21 inches in diameter (a significant issue) would affect other components of the environment, as she disclosed in her rationale for selecting Alternative 3. ROD at 8.

The FEIS at 21 and 32 and the ROD at 28 documents that dwarf mistletoe would be retained at endemic levels in order to provide biodiversity on the landscape. The FEIS at 21 describes the methods by which

dwarf mistletoe would be treated. It clearly describes how the infected Douglas-fir would be removed, as well as uninfected Douglas-fir in close proximity to infected Douglas-fir. In addition, Douglas-fir in close proximity to large ponderosa pine or western larch would also be removed. This prescription would not completely eliminate mistletoe, but would reduce it such that it occurred at endemic levels. In order to address dwarf mistletoe with the analysis area, the proposed treatments would protect uninfected trees through a multi-pronged approach. The existing forested condition states that the mistletoe infection has spread throughout the landscape in all host species with infection levels so high in some areas that stand development is jeopardized. FEIS at viii. The silviculture prescriptions for dwarf mistletoe management will improve that existing condition while also leaving some dwarf mistletoe at endemic levels in order to provide biodiversity on the landscape. ROD at 28. Description of the treatments effects on dwarf mistletoe spread are thoroughly described in the Forest Vegetation Report, located in the Appeal Record at 5, 6, and 8.

Appellant Statement #2: Appellant states that Alternative 3 should be changed by removing all dwarf mistletoe infected trees. As it stands, appellant states that Alternative 3 will not ensure the spread of the disease will be adequately reduced and it will not reduce risk of dwarf mistletoe spreading to adjacent private lands. LD at 1.

Response: I find that the Responsible Official selected an alternative that treats mistletoe infected trees, but retains adequate trees to provide for other habitat components.

As stated in response to Appellant's Statement #1, the Responsible Official has the latitude to select any alternative described in the FEIS and chose Alternative 3 in order to remove some, but not all of the dwarf mistletoe. The FEIS also addressed how the selected alternative would reduce fire hazard (FEIS at 102-108); insect infestations (FEIS at 70-82); mistletoe spread and tree growth rates (FEIS at 70-82); and visuals (FEIS at 302-322). I also find that by addressing mistletoe levels on public lands, the project should help reduce the spread of mistletoe from public land to private land.

Appellant Statement #3: Appellant states that Alternative 3 should be changed to include harvesting ponderosa pine trees over 21 inches if good silviculture management warrants because it would improve forest health and reduce fire risk. LD at 2.

Response: I find that the Responsible Official has the latitude to select any alternative described in the FEIS and chose Alternative 3 because she felt it best met the purpose and need and responded to issues raised by the public. ROD at 6-10. I also find that one of the needs of the project is to restore large ponderosa pine across the warm/dry biophysical environments; appellants proposal to include harvest of ponderosa pine over 21" DBH would not meet the purpose and need.

Appellant Statement #4: Appellant states that the selected alternative does not adequately restore the forest health in the Eagle Creek Watershed, nor take steps to minimize the occurrence of a large stand destroying wildfire in the Snow Basin project area. SOAR at 1. Appellant states that the proposed alternative #2 in the draft of Snow Basin EIS is the "only logical alternative for selection because it provides the most protection for the natural resources of the Snow Basin Vegetation Management Project Area" and would best prevent catastrophic fires that would cause both ecologic and economic damage to the forest ecosystem and local economies. AA at 2 and 5. Appellant states that alternative #2 truly balances the needs of the local communities in Northeast Oregon, and protects and restores the forest health, and that this is accomplished by removing disease infested trees both above and below 21 inch DBH and by restoring the forest health by removing the greatest number of forest pathogens.

Appellant states that this would effectively reduce the fuels loads in both Fir and Pine trees that are now dangerously far above past historic levels. AA at 4.

Response: I find that Alternative 3 takes adequate and similar steps as Alternative 2 in protecting the health of the Eagle Creek Watershed.

The regulation at 40 CFR 1502.13 requires the agency to briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action. As described in the FEIS, the primary purposes of the project are to 1) manage forest composition structure, and density toward the historic range of variability (HRV) across the landscape and improve sustainability; 2) maintain and increase landscape resilience to reduce the risk of uncharacteristic disturbance, including the risk of high severity stand replacing fires, insect outbreaks and disease, and 3) provide wood products to the local economy. FEIS at 5-8; ROD at 2-3.

As described in the response to Appellants Statement #1, the Responsible Official can select an alternative that is described in the FEIS. One of the purpose and needs of the project is to reduce the risk of high severity stand replacing fires. FEIS at 5-8. As displayed in the FEIS, there is a 5% difference between Alternative 2 and Alternative 3 in terms of how the project changes stand replacement potential from wildfire. FEIS at 45. The differences between the alternatives as to how they reduce insect and disease levels, reduce fuel loads, and protect fish habitat are described throughout the FEIS in Chapter 3. FEIS at 49-387. As described in response to Appellant's Statement #1, the Responsible Official considered the differences between the alternatives, and selected Alternative 3 because she felt it best met the purpose and need and responded to the issues raised by the public. ROD at 6-10.

Appellant Statement #5: Appellant states that regeneration harvest was dropped as a management tool for no apparent reason and that it should be an option available to return the forestlands to the desired tree species of ponderosa pine and western larch. AA at 4.

Response: I find that the Forest documented the rationale behind removing the regeneration harvest from the selected alternative.

The regulation at 40 CFR 1503.4 outlines the agency's authority for making changes between a draft and final EIS. Specifically, in response to comments, an agency's possible responses to comments include the option to: modify alternatives including the proposed action; develop and evaluate alternatives not previously given serious consideration by the agency; supplement, improve, or modify its analyses; and make factual corrections.

The FEIS at 43 and ROD at 22 documents that regeneration harvest units were eliminated from the final alternatives in response to public comments. In addition, the Forest determined that the regeneration harvest units had not reached 95% or greater culmination of mean annual increment (CMAI) required by the National Forest Management Act (NFMA). Appeal Record B Section IDT Processes, IDT meeting notes dated 14 February 2012. The Forest also determined that the regeneration harvest units did not meet any of the exceptions specified in the NFMA and that the Wallowa-Whitman Land Resource Management Plan did not include any additional CMAI exemptions for regeneration harvest.

Appellant Statement #6: Appellant states that the Forest Supervisor deviated from the FEIS and the preferred alternative which they believe reduces the potential of the vegetative condition of the landscape which historically was dominated by ponderosa pine and thus does not adequately reduce

the risk of fire that would have been achieved if Alternative 2 or the preferred alternative in the FEIS would have been selected. BCC at 1.

Response: I find that the Responsible Official acted within her authority to select an alternative other than the Proposed Action. I find that the Responsible Official's preferred alternative meets the Purpose and Need.

The regulation at 36 CFR 220.4(c) requires the Responsible Official to complete the environmental document review before making a decision on the proposal, consider the environmental documents, public and agency comments (if any) on those documents, and agency responses to those comments; include environmental documents, comments, and responses in the administrative record, consider the alternatives analyzed in environmental document(s) before rendering a decision on the proposal, and make a decision encompassed within the range of alternatives analyzed in the environmental documents.

One of the purpose and needs is to manage forest composition, structure and density towards the historic range of variability (HRV) across the landscape and improve sustainability. FEIS at 6; ROD at 2. The selected alternative will move forested stands toward HRV for species composition, stand densities and stand structures at a landscape scale. FEIS at 59 and 81; ROD at 11.

Appellant Statement #7: Appellants state that by utilizing the Van Pelt Guidelines, the Forest Service has changed the definition of old growth from their current Forest Plan, which requires a forest plan amendment. Because no amendment is proposed, the project is in violation of the National Forest Management Act, which requires consistency with the land management plan. AFRC at 6. Appellant states that the public has not been given the opportunity to comment on these guidelines, and there has been no direct, indirect, or cumulative effects analysis of this strategy. AFRC at 4.

Response: I find that the Responsible Official complied with the current Wallowa-Whitman Land and Resource Management Plan.

Retention of trees older than 150 years using the Van Pelt guidelines meets Snow Basin Desired Condition and Purpose and Need #1 by creating more single-storied large structure stands. FEIS at 7; ROD at 2 and 3. Retention of older trees also provides green replacement trees. FEIS at 20 and 32. Use of the Van Pelt information does not change the Forest Plan definition of old growth based on stand characteristics, which in the Forest Plan is described as MA-15 with no scheduled timber harvest. Forest Plan at 4-89 and 4-91. Direct, indirect and cumulative analysis of Van Pelt guidelines as they apply to the Snow Basin project was included in the FEIS at 73-82. See also response to Appellant Statement #9 for a more detailed explanation.

Appellant Statement #8: Appellant states that FEIS failed to analyze and describe the concept of "skips and gaps" and that Forest did not describe the difference between a "skip" and a "gap". Appellant states that these concepts were not made available for public comment, nor did the FEIS describe the increased cost of using the Van Pelt guidelines or of implementing the skips and gaps concept. AFRC at 4.

Response: I find that the Responsible Official made the concept of skips and gaps available for public comment.

The regulation at 40 CFR 1502.10 describes the recommended format for an environmental impact statement. The forest vegetation report in the Appeal Record describes the concepts of skips and gaps. A “skip” is an area of no or reduced treatment. A “gap” is an area where overstory canopy is understocked or non-stocked. The skips and gaps concept and the Van Pelt guidelines are tools to facilitate field implementation of the silvicultural prescription. Appeal Record, Forested Vegetation Report at 54.

Appellant Statement #9: Appellant states that restricting the logging of the large trees that have ceased to thrive, based on the assertion that the number of snags is diminishing is arbitrary and capricious, as well as arrogant and deceptive because it is knowingly based on obsolete information and it is also environmentally damaging because it promotes conditions that will support a devastating fire. SOAR at 2.

Response: I find that the Forest documented the rationale behind limiting harvest of large trees.

The potential for impacts to large trees was identified as a significant issue during scoping for Snow Basin. FEIS at 12 and 13. In response to this significant issue, the Responsible Official decided to retain large trees, except those Douglas-fir trees infected with mistletoe or adjacent to trees infected mistletoe and grand fir or other species competing with desired species. FEIS at 1, 2, and 12; ROD at 4, 7, and 8. These trees were retained in harvest units to provide replacements for snags and logs through time via natural mortality. In addition, these trees currently serve as wildlife habitat for a variety of species. FEIS at 186-268.

Appellant Statement #10: Appellant states that the management of dwarf mistletoe as described in the FEIS is quite vague and convoluted, and is so absurd that it is difficult to understand. SOAR at 2 and 3.

Response: I find that the Responsible Official adequately describes dwarf mistletoe management. See response to Appellant Statement #1 for a detailed explanation regarding dwarf mistletoe management.

Appellant Statement #11: Appellant states that there is “no support in the peer-reviewed literature for using commercial logging to convert multi-story old growth forest to single story old growth forest” and that the Forest fails to identify the “best available science” that supports converting multi-story old growth stands that are within the historic range of variability to single story stands. HCPC at 19, 32, 33, 35, 36, 38, 39, 40, 41, 52, and 53.

Response: I find that the Responsible Official did consider the best available science supporting the use of commercial thinning to move multi-storied old growth forest to single storied old growth forest.

The National Forest Management Act’s (NFMA) implementing regulations require the consideration of the “best available science” for all site-specific projects. 36 CFR 219.35(d)(2000). Under the applicable NFMA regulations, this requires documenting how the best available science was taken into account in the planning process within the context of the issues being considered;” and “that the science was appropriately interpreted and applied. Forest Service guidance (June 20, 2007) regarding use of the best available science was also followed during project planning.

References to peer reviewed literature and best available science for thinning to move multi-storied old growth forest to single storied old growth forest include Cochran et al 1994, Countryman 2008, Hessburg et al 1999, Huff et al 1995, Lehmkuhl et al 1994, Miller and Keen1960, O’Hara et al 1996, Powell 2009, Quigley and Arbelbide 1997. FEIS at 59, 60, 61, 70, 77, 78, 79, 90, 213, 395, and 396;

Appeal Record, Forested Vegetation Report at 19, 21, 22, 24, 34, 44, 56, 66, and 67.

Appellant Statement #12: Appellant states that the best available science does not support commercial logging in previously unlogged forests, which over time, will progressively simplify stand structure and cause depletion of old growth characteristics such as snags and down logs, ultimately reducing biodiversity. HCPC at 23. Appellant states that “the peer-reviewed science repeatedly urges for a cautious approach to restoration of dry forests, especially in unlogged ponderosa pine/Douglas-fir forests,” and “for excluding logging from moist forest areas where past human disturbances (like timber harvesting) have been limited.” HCPC at 24, 49.

Response: I find that the Responsible Official did consider the best available science supporting the use of commercial thinning to move multi-storied old growth forest to single storied old growth forest. See response to Appellant Statement #11 for more details. In addition, I find that the Snow Basin Vegetation Management Project does not propose logging in previously unlogged forests as asserted by appellant. As described in the FEIS, approximately 94 percent of the planning area has had previous partial cutting, with approximately another 6 percent of the area having been previously regenerated. FEIS at 54.

Appellant Statement #13: Appellant states that the Forest has made no noticeable effort to address the critically important and controversial issue of the conversion of old growth multi-story large tree to single story large tree forests, despite the appellants DEIS comments that specified their concerns with the “piecemeal amendments to the Eastside Screens in order to change MSLT to SSLT.” HCPC at 25, 37, 38, and 41.

Response: I find that the Responsible Official has adequately addressed the effects of moving multi-story large tree forests to single story large tree forests.

The regulation at 40 CFR 1502.1 states that the agency shall “focus on significant environmental issues” and only include a brief discussion of other than issues. Based on scoping and comments received, the Forest identified that structural changes in late and old structure forests was of concern to some members of the public (Issue 1). FEIS at 12. In response to that issue, the Forest disclosed the impacts to LOS and MSLT stands. In addition, Alternative 4 reduces the impacts to LOS and proposes no amendments to the Eastside Screens, thus addressing appellant’s concern. The analysis documents that when combined with LOS acres already treated, approximately 7 percent of LOS in the assessment area will have been treated in the last 15 years. FEIS at 465 and 466.

Appellant Statement #14: Appellant states that some stands in Snow Basin (specifically unit 103) were part of previous proposals such as Eagle Paddy and Eagle Holcomb that would have logged larger trees, but that public protests of these projects led to resolution with the Forest Service to remove trees less than 21 inches diameter at breast height (DBH) while “saving those larger.” HCPC at 25 and 27. Appellant states that these large trees that they once saved are being proposed for removal and asks “how many times must the public save the same trees? Is this not a violation of the public trust?” HCPC at 26.

Response: I find that the selected alternative meets the purpose and need as described in the FEIS.

The regulation at 40 CFR 1502.13 requires the agency to briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action. According to the FEIS, ponderosa pine and western larch continue to decline in the analysis area due to

competition from shade tolerant tree species. FEIS at vii. The purpose and need for the Snow Basin Vegetation Management Project includes reestablishing ecological resilience and sustainability, reducing stand densities, developing specific stand structures and altering species compositions. FEIS at vii, viii. ROD at 2 and 7. The photographs included in the Hells Canyon Preservation Council's appeal demonstrate the need for treatment, showing regeneration of western larch and ponderosa pine being suppressed by grand fir, some of which show signs of fir engraver damage according to the specialist who was part of the appeal review team that I consulted with while reviewing the appeal record.

Appendix B-10 in the FEIS at 492 documents the past vegetation management activities in the planning area. Past decisions do not preclude future actions, as conditions evolve over time and as described in the FEIS. The Eagle Holcomb timber sale was completed in 2001 while the Eagle Paddy timber sale was completed in 2000. The potential for cumulative effects to large trees from these timber sales, when combined with the Snow Basin project was considered in the FEIS at 465-467 and throughout Chapter 3.

Appellant Statement #15: Appellant states that the prescription to cut "an undisclosed number of trees (in the range of thousands) greater than 21" DBH and heavily logs trees in the 15" to 20.9" range will drastically reduce future snag recruitment that will adversely affect a variety of species including cavity nesters and the Pacific fisher. HCPC at 26, 27, and 39. Appellant states that the FEIS failed to disclose the total number of trees greater than 21" DBH that would be removed (including those removed for roads, skid trails, safety, and landings), and that the public and decision-maker should be fully and accurately informed as to the value that would be lost versus the timber value gained by cutting these trees. HCPC at 52 and 53; LOWD at 6, 7, 10, 11, 16 and 17. Appellant asserts that the Forest failed to consider the best available science regarding large trees and failed to consider impacts to the Forest and the project area of having too few large trees for more than half a century. LOWD at 10.

Response: I find that the total number of trees larger than 21" DBH that would potentially be removed is stated in the FEIS, and the Responsible Official has considered the impacts of large tree removal.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. Forest Service guidance (June 20, 2007) regarding use of the best available science was also followed during project planning.

The number of trees larger than 21" DBH that may potentially be cut can be found in FEIS Table 21 at 75 and 76. At least 75% of the existing large trees would be left except in quaking aspen stands, where approximately 40% would be left. FEIS at 75. The selected alternative limits the harvest of trees 21 inches DBH and larger to grand fir, Douglas-fir with dwarf mistletoe infection affecting development of healthy Douglas-fir, and conifers invading aspen stands. This treatment will leave larger trees of the desired species composition and accelerate development of late/old forest structure. ROD at 8.

Appellant Statement #16: Appellant states that the Snow Basin project alone will increase the total area of LOS logged in the last 15 years by 45% and that the Forest has no data to support its position that they are "creating" single story large tree forests though this action, particularly when MSLT is at the low range of HRV. HCPC at 35 and 36.

Response: I find that the decision of the Responsible Official to move MSLT to SSLT is supported by the analysis in the FEIS.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects.

Of the 56,150 acres of late/old structure (LOS) located within the Snow Basin assessment area, approximately 2,785 acres (5 percent) have been treated in some fashion between 1995 and 2010. Under the selected alternative, approximately 1,156 acres of LOS forest would be moved from MSLT to SSLT. In combination with earlier treatments, 7 percent of LOS in the assessment area will have been treated in the last 15 years. FEIS at 465 and 466. Additional information supporting moving MSLT to SSLT can be found in the response to Appellant Statement #18.

Appellant Statement #17: Appellant states that the Forest failed to discuss the scientific uncertainties and scientific controversy associated with logging in LOS stands that convert multi-storied old growth forests to single-storied old growth forests, particularly given that most areas are also deficient in multi-story stands. HCPC at 36, 37, 40 and 41.

Response: I find that the Responsible Official considered the best available science supporting the use of commercial thinning to move multi-storied old growth forest to single storied old growth forest.

The National Forest Management Act's (NFMA) implementing regulations require the consideration of the "best available science" for all site-specific projects. 36 CFR 219.35(d)(2000). Under the applicable NFMA regulations, this requires documenting how the best available science was taken into account in the planning process within the context of the issues being considered and that the science was appropriately interpreted and applied. Forest Service guidance (June 20, 2007) regarding use of the best available science was also followed during project planning. Information supporting moving MSLT to SSLT can be found in the response to Appellant Statement #18.

Appellant Statement #18: Appellant states that the agency has misrepresented the site specific HRV conditions of most of the project area and has failed to show the scientific basis to support their determination of HRV. HCPC at 37; LOWD at 18.

Response: I find that the Responsible Official used an appropriate source for HRV calculation.

The HRV analysis data is from the Continuous Vegetation Survey (CVS), while silviculture field reconnaissance and stand exams were also used. These data were modeled with the Vegetation Dynamics Tool (Countryman 2008). HRV for structural stages was derived from O'Hara et al 1996. FEIS at 57-60. The grouping of biophysical environments in Countryman and Justice is coarser than the breakdown of the data used in the Snow Basin FEIS, and as such, the FEIS utilized a finer scale analysis for HRV. I also find that the selected alternative moves the planning area toward the desired condition as described in the FEIS at 5-8.

Appellant Statement #19: Appellant states that the Forest Service's plan "threatens to dry out many parts of the forest by reducing canopy cover and exposing the soil to direct solar radiation" which will create hotter and drier conditions, resulting in more growth of understory vegetation that contribute to fine fuels that will burn hotter and quicker than vegetation shed from suppressed trees. HCPC at 40.

Response: I find that the effects of the selected alternative are adequately disclosed.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. Effects on tree species composition, tree density and forest structure are described in the FEIS at 76-82. The analysis documents how stand structure would change over time with implementation of the selected alternative. The FEIS recognizes that thinning has the potential to increase solar radiation and decrease fuel moistures over time. FEIS at 91, 551 and 579.

References cited by the appellant (Veblen et al 2000, Mildrexler et al 2009, Running 2008) do not fully support the appellant's assertion. Veblen et al states that management actions that create a mosaic of stand ages may return the landscape to a structure more similar to its pre-1850 condition, and may reduce hazards of both insect outbreak and fire spread. Mildrexler et al tested a global disturbance index and found that only clearcuts exceeding several continuous kilometers could be detected. Running 2008 commented on the need to include land use changes and insect outbreaks in climate change models.

Appellant Statement #20: Appellant states that there is general scientific consensus that the approximate age for protecting old growth trees in eastern Oregon is about 150 years, and that the grand fir, which averages 93 years of age at or above 21" DBH should be considered mature because it is 2/3 of the age of an old growth tree, and as such is not immature as erroneously specified in the DEIS, which is a violation of NEPA's accuracy and best available science requirement. Thus, appellant states that these trees should be protected as they constitute future old growth. HCPC at 52, 53.

Response: I find that the Responsible Official has appropriately considered impacts to old growth in the FEIS.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. A local age/DBH guide for grand fir is being developed by the Whitman Ranger District to be used to avoid cutting of grand fir greater than 150 years of age. FEIS at 21; Appeal Record, Forested Vegetation Report at 11. It is common for grand fir exceeding 21 inches DBH to be less than 90 years of age. FEIS at 27; Appeal Record, Forested Vegetation Report at 13. The old growth definition establishing 150 years of age as minimum age was also used in order to further protect trees that exhibit old growth characteristics. FEIS at 2.

Appellant Statement #21: Appellant states that the proposal to log Douglas-fir over 21 inches in diameter that have dwarf mistletoe runs counter to the best available science, the Goodman letter (which allows for removal of mistletoe infected trees when it does not eliminate currently important wildlife habitat), and violates NEPA and NFMA. Appellant states that the silvicultural prescriptions in all alternatives address dwarf mistletoe (DMT) severity by removing moderately to severely infected trees and that "if all action alternatives reduce DMT occurrence and severity in LOS and non-LOS, then there is no justification for cutting down the old growth trees. Alternative 4 would protect old growth, and reduce dwarf mistletoe. Obviously that is the balanced approach." HCPC at 82.

Response: I find that the Responsible Official used the best available science in her decision to cut some dwarf mistletoe infected Douglas-fir trees larger than 21 inches DBH.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency

will consider cumulative effects. In addition, Forest Service guidance (June 20, 2007) regarding the use of best available science was used during project planning. The FEIS cites a number of references of peer reviewed literature and best available science on dwarf mistletoe in Douglas-fir, including Hawksworth and Wiens 1996 and Hessburg et al 1994 and 1999. Effects of dwarf mistletoe on Douglas-fir are included in the Snow Basin file. Appeal Record, Forest Vegetation Report, Snow Basin Dwarf Mistletoe Management. Harvest of Douglas-fir 21" DBH or larger would occur when dwarf mistletoe infection impedes development of healthy forest conditions. ROD at 8.

As cited by appellant, the Goodman letter allows for removal of mistletoe infected trees when it does not eliminate important wildlife habitat. As documented in response to Appellant Statement #1 and #5, mistletoe will not be eliminated, but will remain on the landscape at endemic levels. The wildlife section of the FEIS fully documents impacts to species that utilize mistletoe infected trees. FEIS at 191, 195, 196, 197, 199, 210, 211, 212, 224, 229, and 262. The FEIS documents that adequate mistletoe infected trees would remain and would not be eliminated, which complies with the Goodman letter's requirements.

Appellant Statement #22: Appellant states that despite the "paucity of snags on the landscape," the Snow Basin project will harvest grand fir and Douglas-fir over 21 inches DBH that have "a native disease such as dwarf mistletoe and Indian Paint Fungus." Appellant states that the proposed treatments "threaten to remove what would eventually become high quality snags and large downed logs in an already snag deprived landscape and favor commercial characteristics such as crown ratios that homogenize the landscape at the expense of verified old growth characteristics." HCPC at 85.

Response: I find that the Responsible Office has given adequate consideration to snag recruitment.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. The selected alternative includes protection of all grand firs with severe defect, including Indian paint conks to provide habitat for snag dependent wildlife. FEIS at 31. Douglas-fir trees larger than 21" DBH would only be cut if they are severely infected or within 30 feet of a ponderosa pine or western larch 21" DBH or larger. FEIS at 21. The FEIS documents that adequate snags and green tree replacement trees would exist to provide for future snag habitat. FEIS at 240-247.

Appellant Statement #23: Appellant states that the FEIS "creates a system that prioritizes growth – and subsequent logging – of ponderosa pine over Douglas and grand fir" which will allow the Forest Service to obtain maximum dollar return and maximum output of timber which is arbitrary and capricious under the APA and in direct violation of NFMA. LOWD at 57. Appellant asserts that logging "uncharacteristic" large trees now will allow for more growth of ponderosa pine, which will be logged in the future, resulting in higher economic returns. LOWD at 58.

Response: I find that the Responsible Official adequately considered reasonably foreseeable future actions.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. The FEIS documents that ponderosa pine, western larch and aspen are in decline due to competition with shade tolerant tree species. FEIS at 5. The selected alternative meets the purpose and need to maintain and increase landscape resilience and manage forest structure,

composition and density to improve sustainability. FEIS at 6 and 7. A review of the reasonably foreseeable future projects in Appendix B-10 shows that potential thinning or removal of large ponderosa pine is not a reasonably foreseeable future vegetation management action. FEIS at 156 and 157.

Appellant Statement #24: Appellant states that the Forest has not justified using even-aged management, as required by NFMA. LOWD at 58.

Response: I find that the Forest did justify the use of even-aged management as required by NFMA. The Wallowa-Whitman National Forest Land and Resource Management Plan (LRMP) outlines the use of even-aged and uneven-aged silvicultural techniques to meet management objections.

The NFMA states that when timber is harvested using an even-aged management system, a determination that the system is appropriate to meet the objectives and requirements of the Forest Plan must be made, and where clearcutting is to be used, it must be determined to be the optimum method. 16 U.S.C. 1604 (g)(3)(F)(i).

Even-aged management is a silvicultural technique that may be used in most management areas, while uneven-aged management can also be used. FEIS at 63-69. The FEIS fully documents how the use of overstory removal complies with the Forest Plan and how intermediate thinning will meet management objectives. ROD at 20; FEIS at 54-85. Clearcutting is not proposed for this project. ROD at 20.

Appellant Statement #25: Appellant states that the proposed project will eliminate shade and disturb the ground, and does not appear to be in compliance with the Forest's 1992 weed prevention strategy. LOWD at 59.

Response: I find that the Responsible Official selected an alternative that met the requirements of current invasive plant direction.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. Direction for site-specific treatment of non-native invasive species is addressed in the 2005 Pacific Northwest Region Final Environmental Impacts Statement and Record of Decision and the 2010 Wallowa-Whitman Invasive Plant Treatment FEIS, which replaced the 1992 strategy. FEIS at 10 and 281. Direct and indirect effects of the no action and action alternatives are displayed in the FEIS at 287-290. The Forest also documented application of numerous project design features and mitigation measures, as well as monitoring to reduce the potential spread of invasive plant species. Additional information regarding invasive species can be found in the FEIS at 10-11, 29, 281, 294 and 295; Invasive Species Specialist Report at 1, 14, & 15; ROD at 18, 38, 39, and 57.

Fuels Management/Fire Regimes

Appellant Statement #26: Appellant states that the Forest's assertion that fuel buildup on the forest floor is the result of 100 years of fire suppression is not factual. CH at 1. Appellant further states that timber management that prescribed clear cutting caused the fuel problems, and that the fires set by the Forest today have gone wild and become uncontrollable, creating worse catastrophic fires than ever before. CH at 1.

Response: I find that the Forest documented that fire suppression in combination with other past management practices has contributed to fuel build-ups on the forest floor. The FEIS at 641 states that in the period of 2003-2010, the Forest Service (agency-wide) implemented 36,000 acres of prescribed burns and 0.2 or 78 acres of these burns resulted in escapement. During that same time period, 903 burns were conducted on the Wallowa Whitman National Forest, none of which resulted in an escaped fire.

Appellant Statement #27: Appellant states that the FEIS and ROD fail to consider the best-available science regarding the different fire regimes and forest types that exist in the project area due to hydrologic complexity, which would limit fuels reduction activities to scientifically documented plant association groups and relevant fire regimes and would exclude treatments in areas they believe are inappropriate, such as the G4 and G5 biophysical groups, which should be dropped from the project. HCPC at 5, 6, 9, 11, 15, 38, 39, 49, 50, 51, 53. Appellant further states that the project fails to recognize that dry forest management recommendations originally derived from the ponderosa pine forests of the southwest United States apply to only limited areas in the interior Pacific Northwest and that the Forest should have focused treatment on the warm/dry Douglas-fir/ponderosa pine biophysical environments. HCPC at 7, 56.

Response: I find that the Forest used the best available science in considering fire regimes.

Forest Service guidance (June 20, 2007) regarding the use of best available science was followed during project planning. The Forest used the Fire Regime Condition Class (FRCC) work sheet during planning. The factors considered in completing the worksheet include departure from fire return interval, fire intensity, stand structure and stand composition, which were developed for each potential vegetation group, then combined for a total landscape analysis. FEIS at 88-89; Appeal Record, Fuels Specialist Report at 20 and 21. The FEIS states that 13% of the project area is in the mixed severity fire regimes, while most of the project area occurs in the drier biophysical environments. FEIS at 462.

Appellant Statement #28: Appellant states that while the FEIS recognizes moist forests characterized by mixed-severity fire, the Forest proposes to convert these forests to ones that are dominated by surface fire, which demonstrates a pre-mediated plan to remove these forests from the historic range of variability, thus running counter to the purpose and need and the best available science, which shows little evidence for the widespread existence of open park-like or savanna conditions in the interior Pacific Northwest. HCPC at 9-11, 37, 38, 49, 50, 51, 52, 53. Appellant further states that the FEIS admits that single story large tree forests did not historically exist in the cool/moist biophysical environment and that the proposal to log this rare forest type in order to convert it to another forest type that has no historical representation “flies in the face of the best available science,” is “reckless forest management” and violates scientific integrity, NEPA, ESA, NFMA and the Eastside Screens. HCPC at 34, 35, 38, 39, 49, 50, 51, 53.

Response: I find that the Forest considered the potential impacts to moist forests and I find that the Forest considered the best available science during project planning.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. Forest Service guidance (June 20, 2007) regarding the use of best available science was followed during project planning.

The fuels section of the FEIS identifies that some areas (approximately 13%) are in the mixed-severity fire regime; this information is included in the FRCC discussions. FEIS at 88-89. The FEIS at 81 describes treatments in the cool/moist/dry grand fir biophysical group. The FEIS documents that with implementation of the project, SSLT would go above HRV. This would result from improving the ponderosa pine and western larch component of the forest. Over time, SSLT would be allowed to develop into MSLT in the future. FEIS at 81.

References to peer reviewed literature and best available science for the use of intermediate harvest to move multi-storied old growth forest to single storied old growth forest include Cochran et al 1994, Countryman 2008, Hessburg et al 1999, Huff et al 1995, Lehmkuhl et al 1994, Miller and Keen 1960, O'Hara et al 1996, Powell 2009, and Quigley and Arbelbide 1997. FEIS at 59, 60, 61, 70, 77, 78, 79, 90, 213, 395, and 396. Appeal Record, Forested Vegetation Report at 19, 21, 22, 24, 34, 44, 56, 66, and 67.

Appellant Statement #29: Appellant states that fuels reduction activities should be restricted to areas that are outside their historical pre-fire suppression conditions, as recommended by leading scientists in the field of forest and fire ecology. HCPC at 11.

Response: I find that the FEIS proposes treatments in the Snow Basin planning area in order to manage forest structure, composition and density towards landscape HRV and improve sustainability, as documented in the purpose and need. FEIS at 6.

The FEIS thoroughly evaluates the area for its departure from historical pre-suppression conditions. The process uses departure from fire return interval, fire intensity, stand structure and stand composition to determine FRCC departure. The project will result in a reduction of the stand replacement potential to 52% of the planning area. FEIS at 86 and 93.

Appellant Statement #30: Appellant states that the FEIS documents that the fire regime departure is within HRV and that the vegetative conditions departure for these moist sites is low, but then questions the results of the model by stating that it may be under-representing the actual departure of these areas. Appellant states that this is a “biased and self-serving approach to interpreting data, and the conclusions to log in these moist environments run counter to the science.” HCPC at 15, 50, 51, 53.

Response: I find that the FEIS documents how fire regime has been affected over time and that conditions are outside of HRV.

Treatments in the cool moist sites are proposed to manage stand structures, as not all treatments are proposed for fuels reduction. The FEIS does fully recognize the cool and warm moist stands that are interspersed throughout the planning area exhibit different characteristics than the warm dry biophysical environments. FEIS at 89.

Appellant Statement #31: Appellant states that the project threatens to increase fire risk by logging mature and large, fire resistant trees across the project area and by proposing to log in moist mixed conifer forests. HCPC at 16, 17, 50, 51. Appellant states that the FEIS “openly discloses that fuels reduction treatments will degrade moist microclimate conditions, running counter to the best-available science.” HCPC at 17, 50, 51 and 53.

Response: I find that FEIS fully analyzed the potential changes in forest vegetation and structure as a result of implementing the selected alternative.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. Forest Service guidance (June 20, 2007) regarding the use of best available science was used during project planning. The FEIS analyzes the fire impact of thinning in all stands and discloses that treatments would modify the understory microclimate. Generally, treatments would shift crown fires to surface fires, which have a higher intensity but are short lived and tend to be less severe. FEIS at 91.

Removal of large trees will be limited to grand fir above 21" DBH, certain Douglas-fir infected with mistletoe, Douglas-fir adjacent to severely infected trees, or when large trees of other species are affecting the health and vigor of aspen stands. ROD at 8. The FEIS disclosed that fuels reduction treatments will reduce mid-seral closed canopy stands, moving them toward desired conditions and accelerating development of LOS characteristics. FEIS at 95 and 612.

Appellant Statement #32: Appellant states that the argument put forth that fire suppression has increased multi-story old forest conditions beyond the historic range of variability is not supported by the data. HCPC at 32 and 33.

Response: I find that the Forest has documented how past management actions have moved the existing condition of the Forest to one that is outside of HRV.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. It is generally accepted that fire suppression in combination with other past management practices have contributed to changes in forest structure. Multi-story LOS is and will remain in HRV with any of the action alternatives. FEIS at 470 and 611.

Economics

Appellant Statement #33: Appellant states that Alternative 3 does not meet the economic needs and demands in this area for wood for home heating. Appellant states that instead of burning down wood, the Forest should sell firewood permits to have this wood removed. CH at 2. Appellant states that any area with useable firewood after logging be made available if and when conflicts with the logging operation are over, so that the local economy is supported and excess fuel loads are removed. SOAR at 3.

Response: I find that Alternative 3 does meet the economic needs of the community and has the potential to provide wood for home heating.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. Purpose and need #3 is to provide a supply of forest products to the public to utilize forest resources and to provide a supply of materials to local markets. The analysis documents how the selected alternative meets this element of the purpose and need and states that Alternative 3 would generate approximately 48 million board feet.

Appellant's suggestion to sell firewood permits is not precluded by the Snow Basin decision. Following completion of the timber sale contracts, firewood permits may be sold at the discretion of the Forest, as

disclosed in the ROD at 5, which states that grapple and hand piles of slash may be available for firewood gatherers on a case-by-case basis, which would reduce the need to burn all slash piles.

Appellant Statement #34: Appellant states that the ROD does not adequately address the purpose and need of the document because the economic returns of the selected alternative are 40% less than what the FEIS' preferred alternative predicted. Appellants state that the quantity and quality of the board feet and wood fiber removed will be less and will dilute the impact of the project and not produce enough economic return to justify the efforts of the project. BCC at 1 and 2.

Response: I find that the FEIS adequately addressed the purpose and need and selected an alternative that met the purpose and need and responded to issues raised during scoping.

The regulation at 36 CFR 220.4(c) requires the Responsible Official to complete the environmental document review before making a decision on the proposal, consider the environmental documents, public and agency comments (if any) on those documents, and agency responses to those comments; include environmental documents, comments, and responses in the administrative record, consider the alternatives analyzed in environmental document(s) before rendering a decision on the proposal, and make a decision encompassed within the range of alternatives analyzed in the environmental documents.

The Responsible Official has the latitude to select any alternative described in the FEIS. The decision framework documented in the FEIS at 14 and 15 and in the Record of Decision (ROD) at 4 outlined the criteria that the Responsible Official used to make her decision. After completing the FEIS, the Responsible Official selected Alternative 3, which met the purpose and need and responded to issues raised during scoping. ROD at 6-10. The selected alternative will generate approximately 48 million board feet of timber, thus meeting purpose and need #3. The economics of the selected alternative were fully considered in the FEIS at 352-359.

Appellant Statement #35: Appellant states that the social and economic analysis in the FEIS is misleading, incomplete and completely lacking in scope and depth. AFRC at 6.

Response: I find that the social and economic analysis in the FEIS documents the potential for direct, indirect, and cumulative effects, in compliance with regulation.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. The FEIS fully recognizes the socio-economic effects associated with the Snow Basin Project and includes a discussion of impacts to economics and environmental justice. FEIS at 352-359.

Public Involvement

Appellant Statement #36: Appellant states that the Forest Service did not properly take into account public input for the Snow Basin Project. BC at 5; SOAR at 1. First, appellant states that the majority of respondents identified economics as an issue, but that this issue was not carried forward during development of the alternatives. BC at 5. Second, appellant states that the majority of respondents asked for the removal of the 21 inch diameter rule, but that the ROD selected an alternative that was designed to give more protection to specific species of trees greater than 21 inches, such as ponderosa

pine and western larch. Appellant states that this demonstrates that the Forest Service did not take into account the public comments for either the 21 inch rule or the importance of the economics when they developed their preferred alternative (alternative 3) for the Final Snow Basin EIS. BC at 5.

Response: I find that the public's comment of identification of economic issues and removal of the 21 inch diameter rule was taken into consideration and the decision for the selected alternative was given rationale.

The regulation at 40 CFR 1503.4(a) requires the agency to assess and consider comments both individually and collectively, and shall respond by one or more means, stating its responses in the final statement. One possible response is to modify alternatives including the proposed action. In addition, the regulation at 40 CFR 1505.2(b) requires the agency to identify all alternatives considered in reaching its decision. An agency shall identify and discuss all such factors including any essential considerations of national policy which were balanced by the agency in making its decision and state how those considerations entered into its decision.

The FEIS response to comments section (FEIS Appendix C at 540-653) gives specific responses to comments in regards to economics and the removal of the 21" diameter rule. (FEIS at 599-600). Based on these comments, the number of 21" DBH trees to be harvested and number of 21" DBH trees to remain was modified in the FEIS for alternatives 2 and 3. In the DEIS and FEIS, Alternative 4 does not remove 21" DBH trees or greater. FEIS at 17.

The rationale for the selection of Alternative 3 by the deciding official is found on pages 6-7 of the ROD. It states that the "selected alternative achieves the purpose and need for action, and responds to the key issues identified in response to comments received regarding the proposed action and draft environmental impact statement". The ROD further highlights key issues which addresses harvesting trees of 21" DBH or greater and how these issues were addressed by the selected alternative. ROD at 7-10.

Purpose and Need

Appellant Statement #37: Appellant states that the purpose and need to move forests toward the historic range of variability (HRV) is not being met by harvesting in multi-story large tree environments, as those areas are either below or at the low end of HRV and harvest would further exacerbate their decline. HCPC at 3, 4, 30, 31, 32, 33, 35, 38, 49, and 52.

Response: I find that the objective to harvest multi-story large tree environments in efforts to change to single-story tree environments does meet the purpose and need of moving forests toward the historic range of variability.

The agency shall, in accordance to 40 CFR 1502.16, include the environmental impacts of the alternatives including the proposed action, any adverse environmental effects which cannot be avoided should the proposal be implemented, the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitments of resources which would be involved in the proposal should it be implemented.

The FEIS describes key indicators to managing forest structure, composition and density towards landscape HRV and improve sustainability. FEIS at 73. One key indicator is acres of multi-storied LOS moved to single storied LOS. For the majority of the forest structures in the planning area, most forest

structures are below the HRV in regards to SSLT. FEIS at 59. Thus, the selected alternative fulfills the purpose and need by prescribing harvesting in multi-story LOS stands to move them toward single-story LOS stands. With regards to MSLT, the majority of forest structures in the planning area are currently within HRV.

Appellant Statement #38: Appellant states that the Forest Service has not indicated specific reasons why the project should occur “now” and that the purpose and need and desired conditions are “all remarkably generalized” and could be undertaken on a different time schedule. LOWD at 59.

Response: I find that the Responsible Official identified the need to implement the project.

The Forest Service Handbook (FSH) defines the purpose and need as the difference between the desired condition and the existing condition. FSH 1909.15, 11.21. The appellant’s question as to “why now” can be answered by the fact that the Responsible Official has wide latitude in determining when site specific projects will be initiated. The ROD at 2-4 describes the purpose and need of the project. By proposing the Snow Basin project, the Responsible Official determined that there was a difference between the existing and desired condition and that the time for action was now.

Alternatives

Appellant Statement #39: Appellant states that the DEIS does not include a reasonable range of scientifically-based developed alternatives, “even though it is “reasonable” to include an alternative that protects old growth and focuses on scientifically supported restoration objectives,” and NEPA requires a full range of reasonable scientifically sound alternatives. HCPC at 18, 26 and 40; LOWD at 6. Appellant states that the purpose and need is unduly narrow and biased toward action alternatives (that are all similar and “vary by degree of destruction”) that promote logging over other forest health concerns and have similar effects, and that the alternatives considered fail to reduce adverse environmental effects in violation of NEPA and the APA. LOWD at 17, 18, 19, 20, 21, 22, 23, 24, 25. Appellant further states that the no action alternative cannot be truly considered, as the Forest Service treats it only as a “baseline”. LOWD at 24 and 25.

Response: I find the DEIS included a reasonable range of alternatives that were developed to meet the purpose and need.

The regulation at 40 CFR 1502.14 states that the agency shall “rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.” The FEIS considered in detail four alternatives, including the no action alternative. FEIS at 16-48. These alternatives were developed utilizing scientifically supported and common practices in order to meet the purpose and need of the project and were based on issues raised during scoping. In addition, several alternatives were considered, but eliminated from detailed study, including alternatives similar to those described by the appellant. FEIS at 42 and 43. The FEIS also modified the proposed action and the action alternatives in response to comments received during the comment period. 40 CFR 1503.4. When combined, these alternatives represent a “reasonable range of alternatives.”

The regulation at 40 CFR 1502.13 states that the agency “shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.” The purpose and need includes 3 elements that explain the desired condition when compared to the

existing condition. FEIS at 6 and 7. I do not find these elements to be “unduly narrow” as described by appellant because the agency was able to develop 2 action alternatives in response to key issues raised during scoping.

I also find that the no action alternative was analyzed for each resource in the FEIS in compliance with 40 CFR 1502.14. While appellant may disagree, the no action alternative is considered a “baseline” in compliance with CEQ guidance, which states that “the concept of a baseline against which to compare predictions of the effects of the proposed action and reasonable alternatives is critical to the NEPA process. The no-action alternative is an effective construct for this purpose.” 1997 CEQ Considering Cumulative Effects Guidance at 41.

Appellant Statement #40: Appellant states that the FEIS failed to analyze an alternative that limits fuels reduction to the appropriate plant association groups, which would recognize the “well-known fact that forests characterized by the mixed severity fire regime are within the range of natural variability.” HCPC at 19. Appellant states that the failure to include such an alternative is a failure of the NEPA process and does not give the public the opportunity to “advocate for an alternative based on the best-available science because that alternative does not exist.” HCPC at 19.

Response: I find that each of the alternatives considered in the FEIS meet the purpose and need of moving the project area toward low to mixed fire regimes, including the selected alternative. ROD at 7.

As stated previously, the Responsible Official considered a reasonable range of alternatives, including alternatives that maximized the use of prescribed fire and that limited the use of commercial thinning. FEIS at 42 and 43. As stated throughout this appeal, the Forest used the best available science to develop the proposed action and alternatives and to disclose the environmental effects.

Appellant Statement #41: Appellant states that “across the range of biophysical environments where these aggressive logging treatments are proposed, the Forest Service did not analyze an alternative that focused on the dry environments. This is a clear case of failing to analyze a reasonable range of alternatives as is required by NEPA.” HCPC at 19.

Response: I find that the FEIS contains a reasonable range of alternatives (the no action alternative and three action alternatives) as well as three alternatives considered but eliminated from detailed study.

As described in response to Appellant Statement #51, the FEIS described and evaluated a reasonable range of alternatives and discussed the rationale for eliminating certain alternatives from detailed study. The FEIS at 55 (Table 12) documents that 84% of the project area is in the dry forest types, thus I conclude that all three action alternatives focused on the dry forest environment.

Appellant Statement #42: Appellant states that the Forest Service did not analyze an alternative that offered a different approach from heavy commercial thinning in the 15” to 20.9” DBH range, which would have “reduced adverse environmental effects while still meeting the project’s narrowly focused but linguistically vague purported needs.” HCPC at 20 and 26.

Response: I find that the FEIS considered two alternatives that did not include commercial thinning.

The regulation at 40 CFR 1502.14 states that the agency shall “rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study,

briefly discuss the reasons for their having been eliminated.” The FEIS documented consideration of these alternatives, and discussed that they were not fully analyzed because they were found to not meet the purpose and need of the project and thus did not meet the requirements of 36 CFR 220.5(e).

Appellant Statement #43: Appellant states that in its dismissal of an alternative that focused on restoration that was requested by the public, the agency failed to disclose the existence of any scientific controversy. HCPC at 20 and 40; LOWD at 6, 7, 16 and 27.

Response: I find that the FEIS disclosed scientific uncertainty where it existed and dismissed certain alternatives because they would not meet the purpose and need for action.

The FEIS at 43 considered an alternative that was developed from input from a public meeting and the alternative was found to not meet the purpose and need of the project for a variety of reasons including high mortality rates of random tree species that would move stands away from desired conditions, leaving potentially thousands of girdled trees that would increase fire risk, and failing to reduce susceptibility to large scale insect and disease attacks or wildfires. Best available science, including scientific uncertainty was addressed throughout the FEIS, where applicable. FEIS at 49, 187, and 608.

Appellant Statement #44: Appellant states that the Forest Service failed to consider an alternative that considered less destructive methods, that did not include logging on slopes over 30 percent, that did not include overstory removal, that did not include an alternative with a smaller size limit than 21 inches DBH, that did not consider an alternative without substantial road reconstruction activity, and did not adequately consider use of non-commercial thinning only as an actual alternative. LOWD at 26.

Response: I find that the FEIS included an analysis of the no action alternative that would not implement any activities that would cause environmental effects.

The regulation at 40 CFR 1502.14 states that the agency shall “rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.” As stated previously, the FEIS also considered two alternatives (no action and alternative 4) that did not include the cutting of trees 21” DBH and greater. Another alternative was considered and not fully analyzed that would have used only non-commercial thinning. This alternative was not fully analyzed because it would not meet the purpose and need of the project.

Appellant Statement #45: Appellant states that the labeling of Alternative 3 as environmentally preferred was arbitrary and capricious and never clearly explained why it was labeled as such, versus Alternative 4, which appellant states is environmentally preferable. LOWD at 16 and 17.

Response: I find that the ROD describes the environmentally preferable alternative.

The regulation at 40 CFR 1505.2 states that the ROD shall “identify all alternatives considered by the agency in reaching its decision, specifying the alternative or alternatives which were considered to be environmentally preferable.”

The ROD complies with the regulation by stating that Alternative 3 was the environmentally preferable alternative because it best meets Section 101 of the NEPA by “fulfill the responsibilities of each generation as trustee of the environment for succeeding generations; assuring for all Americans safe,

healthful, productive, and esthetically and culturally pleasing surroundings; attaining the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences; preserving important historic, cultural, and natural aspects of our national heritage, and maintaining wherever possible, an environment which supports diversity and variety of individual choice; achieving a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and enhancing the quality of renewable resources and approach the maximum attainable recycling of depletable resources." ROD at 12 and 13.

Forest Plan Consistency

Appellant Statement #46: Appellant states that the adoption of Alternative 3 is not consistent with 40 CFR 1502.20 or the 1990 Forest Plan, as amended. Appellant states that Alternative 3, which continues to manage by diameter cut and prescribed burning is a failure, and continues the problems the Forest Service has had in the past and would have an unsatisfactory end result. CH at 1.

Response: I find that the Responsible Official's decision to implement Alternative 3 is consistent with the regulations and Forest Plan, as amended. I find that the Responsible Official considered the effects of Alternative 3 on the forest landscape and that the alternative meets the purpose and need of the project.

The regulation at 40 CFR 1502.20 encourages the agency to "tier their environmental impact statements to eliminate repetitive discussions of the same issues and to focus on the actual issues ripe for decision at each level of environmental review." Regulations further define tiering as "the coverage of general matters in broader environmental impact statements (such as national program or policy statements) with subsequent narrower statements or environmental analyses (such as regional or basinwide program statements or ultimately site-specific statements) incorporating by reference the general discussions and concentrating solely on the issues specific to the statement subsequently prepared. 40 CFR 1508.28.

The FEIS is consistent with this regulation by tiering to the Wallowa-Whitman National Forest Land and Resource Management Plan FEIS and ROD (1990), incorporating by reference the accompanying Land and Resource Management Plan, as amended, and tiering to the Invasive Plants Treatment EIS and ROD (2010). FEIS at 9-10. Additional direction and analysis and documentation associated with the FEIS are likewise incorporated by reference in order to decrease the size of the FEIS document. FEIS at 10-11.

The regulation at 40 CFR 1502.16 directs the agency to document the environmental effects of all alternatives including the proposed action in terms of context and intensity. Effects to the forest landscape due to prescribed fire were assessed in the FEIS based for both context (units proposed for fuels treatment; units proposed for harvest) and intensity (the degree of impacts). Alternative 3 proposes a combination of vegetation and fuel treatments that research has shown will be effective at reducing fire potential. FEIS at 91. Treatment activities, when combined with future maintenance activities, are expected to strengthen the capability of stands to withstand disturbance events. FEIS at 94. This meets the purpose and need of moving the landscape toward a condition of reduced risk of high severity and extent of disturbance, taking into account changes in climate. FEIS at 98.

Appellant Statement #47: Appellant states that the ban on cutting ponderosa pine wood for home heating is not consistent with the 1990 Forest Plan. CH at 2.

Response: I find that the FEIS is consistent with the 1990 Forest Plan, as amended.

The National Forest Management Act Sec. 6(h)(1)(i) states that “resource plans and permits, contracts, and other instruments for the use and occupancy of National Forest System lands shall be consistent with the land management plans.”

The 1990 Wallowa-Whitman National Forest Land and Resource Management Plan, as amended, states that “cutting or removal of ponderosa pine wood for fuelwood will generally be prohibited. Exceptions will be by special permit or as specified in personal-use fuelwood permits.” LRMP at 4-38, under Fuelwood Standards and Guidelines. Thus, I find that the Snow Basin project is in full compliance with the LRMP, as amended.

Forest Plan Amendments

Appellant Statement #48: Appellant states that the “Forest Service has approved dozens of site-specific amendments to the Eastside Screens without considering the cumulative effects of doing so across the Eastside forest landscape, or even at the forest-wide level” and as such, the scale (Forest and Region wide) and type (compounding, time crowding, fragmentation, and triggers and thresholds) of cumulative effects analysis is inadequate. HCPC at 29, 37, 38, 41, 43, 44, 45, 46, 47, 48, and 77. LOWD at 10, 11 and 48. Appellant states that the amendments violate the APA, NFMA, and NEPA because it only applies to this project and is likely a significant amendment, and because it applies only to this project, is segmenting possible cumulative effects. LOWD at 8 and 9. Appellant states that the Forest Service has not identified or described the unique need to amend the plan for Snow Basin, in violation of NFMA. LOWD at 9 and 10.

Response: I find that the FEIS fully documents the cumulative effects of past, present and reasonably foreseeable future actions.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. The Forest analyzed the impacts of past projects that amended the Eastside Screens by assessing LOS forests at the landscape scale. Appendix B-2 in the FEIS incorporates all past harvest activities that have amended the Eastside Screens. FEIS at 465. This analysis was included in the FEIS and represents a comprehensive analysis of the potential cumulative effect of amending the Eastside Screens and does not constitute a significant amendment under NFMA. FEIS at 465-467. I also find that the Forest did articulate the need to amend the Eastside Screens in the FEIS at 26-28 and 35-36.

Appellant Statement #49: Appellant is “very concerned that the Forest Service is foreclosing future options for preserving old-growth through its increasing use of site-specific amendments to allow logging in older (LOS) stands that are within, or below HRV” and are significantly and cumulatively affecting the quality and quantity of old growth habitat available for dependent wildlife species throughout the Forest, including pileated woodpeckers, American marten, flammulated owl, and Northern goshawk, which all rely heavily on MSLT and are species with large home ranges. HCPC at 29, 43, 44, 45, 46, 47, 48, 51.

Response: I find that the Forest disclosed the potential effects of amending the Eastside Screens and demonstrated how thinning in certain LOS stands would meet the purpose and need for action. See response to Appellant Statement #48 for a detailed response.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. I also find that the FEIS disclosed the impacts to pileated woodpecker (FEIS at 212, 214, 215, 232-247); American marten (FEIS at 219-226); flammulated owl (FEIS at 256, 257, and 259); and the Northern goshawk (FEIS at 226-232).

Roads

Appellant Statement #50: Appellant objects to the Forest making logging contractors close existing roads as part of their contracts. CH at 2. Appellant states that reclassifying system roads as temporary in order to rip them is wrong and underhanded. CH at 2. Appellant opposes opening and closing roads repeatedly is needless and wasteful and increases erosion. CH at 2.

Response: I find the appellant's objection to using logging contractors to close existing roads as part of their contracts an opinion of the appellant and not an assertion of violation of laws, regulation and policy and as such, is outside the scope of the project. I also find that the FEIS does not reclassify system roads as temporary roads. The FEIS demonstrates the need to open and close roads within the project area and adequately analyzes the effects from erosion to aquatic species and habitat. FEIS at 122-123, 365-366, 454 and 458.

Appellant Statement #51: Appellant states that the damage from the 5.3 miles of temporary road construction proposed with this project is "irreparable" and that "there is nothing temporary about the ecological impacts of these roads." HCPC at 67.

Response: I find the FEIS fully analyzed the potential effects of temporary road construction.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. In addition, temporary roads were disclosed as a key issue in the FEIS and Alternative 4 was specifically designed to respond to this and other issues and does not propose any temporary road construction. FEIS at 13 and 36-39. The potential impacts from temporary road construction are addressed throughout the FEIS by resource. FEIS at 103, 105, 117, 119, 123, 124, 128, 181, 196, 198, 202, 207, 209, 224, 230, 236, 252, 253, 286, 287, 290, 292, 293, 297, 315, 331, 332, 333, 335, 345, 347, 349, 350, 360, 364, 365, 366, 367, 372, 381, and 383. The ROD at 9 documented the Responsible Official's consideration of the impacts of temporary roads prior to making her decision.

Appellant Statement #52: Appellant states that the FEIS failed to analyze the effects of non-logging activities to water quality and non-target plant and wildlife species, particularly regarding road activities. LOWD at 35. Appellant states that the Forest Service incorrectly analyzed direct effects of road reconstruction in the project area by incorrectly stating that the temporary road construction would not result in a change in open road density under the action alternatives. LOWD at 35, 36 and 37. Appellant states that these "temporary roads" will effectively increase open road density, even if only in the short term. LOWD at 36.

Response: I find that the FEIS fully analyzed the effects of non-logging activities (particularly road-related activities) to water quality and other species of concern.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. The FEIS at 122-126, 139, 157-178, 273-280, and 368 document how the impacts from road-related activities may affect water quality and other species of concern.

I also find that the Forest complied with the Forest Plan regarding road densities. The Forest Service Manual at 7705 defines a temporary road as a road “authorized by contract, permit, lease, or other written authorization that is not a forest road...and is not included in a forest transportation atlas.” These roads are not calculated as part of the open road density because they are not open to general motor vehicle traffic. As stated in the FEIS, miles of open roads are based on operational maintenance level 2-5 for National Forest System roads. FEIS at 363. Regardless, the impacts of creating and subsequently decommissioning temporary roads (both short and long term) are displayed throughout the FEIS at 119, 138, 157, 201, 202, 220, 233, 248, 249, 251, 253, 254, 263, 363, 364, 368, 370, 372, and 373.

Watershed/Riparian/Aquatics/Soils

Appellant Statement #53: Appellant states that the Snow Basin project involves construction or reconstruction of 48.4 miles of roads in the project area and that “neither the DEIS, FEIS, or ROD mention any anticipated need for stormwater discharge permits under NPDES, as required by N.W. Env’tl. Def. Ctr. v. Brown.” Appellant states that the Forest Service should have given the public the opportunity to comment on the permits that it may be required to obtain for that road construction and reconstruction and that the failure to do so was a direct violation of NEPA. HCPC at 22 and 23; LOWD at 54 and 55.

Response: I find that the Forest documented how the project complies with the Clean Water Act (CWA) by prescribing and implementing site-specific Best Management Practices (BMPs) that were designed to protect beneficial uses of water. ROD at 15.

The Clean Water Act (CWA) of 1977 (as amended in 1982) provides overall direction for the protection of waters of the United States from both point source and non-point source pollutants. Currently, the Oregon Department of Environmental Quality (ODEQ) implements the Clean Water Act in Oregon. ODEQ and the Forest Service operate under a Memorandum of Understanding (MOU) that defines the process by which the Forest Service and ODEQ will cooperatively meet State and Federal water quality rules and regulations. The Forest Service is implementing this MOU, including those provisions directly relevant to this project. Specifically, the Forest documented compliance with the CWA and MOU by prescribing site-specific BMPs and by documenting the potential direct, indirect and cumulative effects of the project activities. FEIS at 109-110 and 119-126 (specific to erosion and sedimentation); Appendix B-1. Additionally, the FEIS at 122-126 details the potential effects from road-related activities associated with the project. Appendix B-1 details project design features, best management practices and mitigation measures that were developed to reduce or eliminate impacts, thus fully complying with current ODEQ and EPA requirements.

The Forest also complied with those provisions of the CWA and MOU that pertain to streams listed as impaired under Section 303(d) of the CWA. Specifically, the Forest evaluated whether any streams in the project area were listed as impaired and thus whether additional provisions of the CWA and MOU applied. The list of impaired streams is available from the project record and I have noted that there are no impaired streams found in the project area. FEIS at 110.

Appellant's citation of NEDC v. Brown¹ has not had a decision by the Supreme Court. Until case law is fully adjudicated, congressional action is taken, or new regulation is promulgated, it is unclear whether or not the agency will be required to obtain an NPDES permit for "logging roads." Moreover, regardless of Supreme Court action, Congress took legislative action suspending any potential permitting requirements imposed by the decision until September 30, 2012. Due to these and other related factors, it is uncertain whether any NPDES permitting requirements apply or will apply in the future to stormwater discharges from logging roads. If an NPDES permit related to logging roads is required by ODEQ or EPA at any time, the Forest will comply with that requirement and will obtain and implement any necessary permits required by a Federal or State agency.

Appellant Statement #54: Appellant states that the Forest Service failed to provide an adequate analysis of the direct, indirect and cumulative effects of the action alternatives on water quality, water temperature, and sedimentation. LOWD at 54.

Response: I find that the Forest did provide an adequate analysis of the direct, indirect and cumulative effects of the action alternatives on water quality, water temperature, and sedimentation. 40 CFR 1508.7, 40 CFR 1508.8

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. Direct and indirect effects for stream temperature are discussed on pages 131-136 of the FEIS, for water quality on pages 131-132 of the FEIS and for erosion and sedimentation on pages 119-126 of the FEIS.

Cumulative effects for aquatics are discussed on pages 143-157 of the FEIS and in Appendix B-10 pages 491-496 of the FEIS. Cumulative effects for all activities are rated as low except for range activities and road maintenance activities, which were rated as moderate. FEIS at 156 and 157. Low, moderate and high risks definitions for cumulative effects are discussed on page 143 of the FEIS.

Appellant Statement #55: Appellant states that the DEIS relies on riparian habitat conservation areas (RHAs) and BMPs to reduce the delivery of sediment to streams, but that the existing situation indicates roads are causing erosion into streams. Appellant states that the FEIS has an "unjustifiably positive outlook" on the effectiveness of best management practices (BMPs) to decrease sediment over the long term, given that the effectiveness of BMPs declines over time. HCPC at 53.

Response: I find that BMPs and RHAs have been used appropriately to reduce delivery of sediment to streams.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. Research has shown RHA widths are sufficient to reduce sediment delivery to streams. See discussion and literature citations on pages 119-122 of the FEIS. Estimated sediment delivery is shown to decrease in the long term from existing conditions using road improvement BMPs. The Water Erosion Prediction Project (WEPP) model results and associated

¹ Appellant's citation of NEC v. Weldon could not have been applied to this project in a timely manner, as that decision was rendered on March 26, 2012, which is fourteen days after the ROD for Snow Basin was signed.

discussion (table 42, page 123 of FEIS) show the long term reduction of sediment delivery from roads to be over 70%.

Thus, I find that the FEIS met the regulatory requirements of 40 CFR 1502.16 in the analysis and disclosure of the environmental consequences of the alternatives.

Appellant Statement #56: Appellant states that the DEIS failed to consider peer-reviewed science which shows that there is a high degree of certainty that mechanical fuels treatment will increase erosion and sediment delivery to stream systems, which would negatively affecting water quality, regardless of BMPs involved or care in implementation. HCPC at 54.

Response: I find that the FEIS utilized best available information, including peer-reviewed models and professional judgment, to determine potential effects regarding erosion and sediment delivery from mechanical fuels treatments.

The regulation at 40 CFR 1502.24 states that agencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements. Likewise, Forest Service guidance on the use of best available science (June 20, 2007) states that the NEPA document should identify methods used, reference scientific sources, discuss responsible opposing views, and disclose incomplete or unavailable information was followed during project planning.

The FEIS at 119 documents literature describing the concept that proximity of activities to stream channels influences the effects of project activities on hydrology and sediment. The FEIS at 121 discusses the WEPP model and how it was used to model harvest units with the highest potential for sediment delivery. WEPP is a peer-reviewed model developed by the Rocky Mountain Research Station that accounts for various processes that lead to erosion and sediment delivery.

The FEIS at 121 states that variables used for WEPP model inputs were gathered during site visits by the Forest Hydrologist. The FEIS at 121 also details how professional judgment and field validation of the WEPP analysis supports the WEPP results. For the proposed activities, WEPP predicts that there is little risk of fine sediment reaching stream channels adjacent to harvest units with the highest potential for erosion in the project area. FEIS at 122.

WEPP was also used to model soil erosion from roads that were identified as the greatest contributors of fine sediment to streams. FEIS at 123. The FEIS at 124 states that the combination of new road construction, temporary road construction, opening and use of closed roads, and log haul traffic will likely result in a short term increase in erosion rates in the analysis area. However, a long-term decline in erosion from roads will likely occur as a result of road reconstruction activities. RHCA buffers will likely moderate much of the increase and the amount of sediment reaching stream channels will likely result in an immeasurable increase in fine sediment levels in streams in the analysis area for aquatic species.

The cumulative effects analysis indicates that there will be a short-term increase in sediment production associated with project implementation moderated by effective BMP practices and mitigation measures. A long-term decrease in sediment is expected as a result of road reconstruction and fire risk reduction lessening cumulative effects. FEIS at 154.

In response to comments that were raised by the appellants, it was noted that in order to reduce the risk of sediment delivery from units within the RHCAs, the proposed harvest method was changed to a

forwarder logging system in RHCAs. This also reduces the temporary roads needed for logging. FEIS at 649.

Appellant Statement #57: Appellant states that the DEIS indicates that well-developed riparian vegetation is lacking or missing entirely, which means that these areas are not able to trap or filter sediment and yet the DEIS proposes skidding across Category 4 streams and ephemeral draws, even though the DEIS identifies that there is greater potential for increased sediment delivery rates to many intermittent tributaries during timber harvest activities. Appellant states that they contested actions in RHCAs and that the FEIS has failed to address their concerns. HCPC at 54 and 55. Appellant states that the FEIS did not identify the science (ICBEMP or INFISH) or additional design features that they relied on in determining protection measures for Category 4 streams and states that INFISH buffers are insufficient. LOWD at 41 and 42.

Response: I find that the FEIS has addressed the appellants concerns for actions in RHCAs; see response to DEIS comments section in Appendix C of the FEIS at 647. See also response to Appellant Statement #56 as to how actions were mitigated in RHCAs due to concerns raised by the public.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. After reviewing the FEIS, I find that the Forest documented that the fact that category 4 streams are ephemeral or intermittent by nature is the reason that in most cases well developed riparian vegetation are not present. However, it is expected that in most cases upland vegetation including grasses, shrubs, trees and forest litter would be present and would act in a similar buffering manner as riparian vegetation. Mechanical thinning in category 4 RHCAs will maintain a 50 foot buffer which is the minimum required by INFISH (1995). Research by Rashin et al. (2006) has shown that of the 193 erosion features greater than 30 feet from a stream, 95 percent did not deliver sediment to the stream. FEIS at 119.

In addition, the FEIS did discuss the science used for design features on category 4 streams. FEIS at 119-122. Furthermore scientific research was used in the design of buffer widths for RHCAs. See INFISH, 1995. A limited number of crossings and forwarding would occur on category 4 streams. See Appendix B13, FEIS at 508-510. These crossings would be on hardened surfaces and would only occur during the dry season, minimizing sediment inputs to fish bearing streams below measurable levels. FEIS at 120 and 459.

Thus, I find that the FEIS met the regulatory requirements of 40 CFR 1502.16 in the analysis and disclosure of the environmental consequences of the alternatives.

Appellant Statement #58: Appellant states that the FEIS contains no analysis of the combined effects of all activities (mechanical entries for logging, piling, and burning) in each watershed to streams and riparian areas, and also fails to consider the effects of these activities when combined with road building or restoration, weed control activities and continued grazing. LOWD at 29.

Response: I find that the FEIS contains analysis of the combined effects from all proposed activities to streams and riparian areas within the analysis area.

The regulation at 36 CFR 220.4(f) states that cumulative effects analysis shall be carried out in accordance to 40 CFR 1508.7, which defines a cumulative impact as an impact on the environment

which results from the incremental impact of the action which added to other past, present, and reasonably foreseeable future action regardless of what agency (federal or nonfederal) or person undertakes such other actions. The analysis of cumulative effects begins with the consideration of direct and indirect effects on the environment that are expected or likely to result for the alternative proposal for agency actions.

The FEIS at 117-118 describes the potential direct and indirect effects to water yield and streamflow, while the FEIS at 119-129 documents potential direct and indirect effects to erosion and stream sedimentation. The FEIS at 130-131 discusses potential direct and indirect effects to channel stability and function, while the FEIS at 135-136 documents potential direct and indirect effects to stream temperature. With regards to cumulative effects, the FEIS at 144-155 fully documents the potential cumulative effects to stream and riparian conditions from the proposed activities and past, ongoing, and reasonably foreseeable future activities. Appendix B-10 includes a list of the potential activities that were considered in the cumulative effects analysis. FEIS at 491-496.

The cumulative effects analysis indicates that there will likely be a short-term increase in sediment production associated with project implementation moderated by effective BMP practices and mitigation measures. A long-term decrease in sediment is expected as a result of road reconstruction and fire risk reduction, thus lessening the potential for cumulative effects. No measurable change in channel stability/function is expected. This is because past, present, and reasonably foreseeable future actions are not predicted to appreciably be felt when compared to ongoing human-cause influences on channel stability. FEIS at 154.

Appellant Statement #59: Appellant states that the Snow Basin project fails to maintain or enhance soil productivity as directed by the Forest Plan, because the project results in an increase of detrimental soil conditions. HCPC at 61. Appellant asserts that the previous soil damage is severe and will be made more severe by the project. HCPC at 61.

Response: I find that the Responsible Official considered the direct, indirect, and cumulative effects of the proposed activities on soil productivity.

The regulation at 36 CFR 220.4(f) states that cumulative effects analysis shall be carried out in accordance to 40 CFR 1508.7, which defines cumulative impacts as stated previously. The regulation at 40 CFR 1502.16 (a - h) directs agency analysis of direct and indirect effects of the proposed action and any alternatives.

The FEIS at 99 details the existing detrimental soil conditions within the analysis area. The FEIS at 101-105 details the methodology for analyzing the potential increases in detrimental soil conditions from the proposed activities and the consistency with the Wallowa-Whitman LRMP standards and guidelines. Changes to detrimental soil conditions are also discussed in the need for pre- and post-implementation monitoring. FEIS at 108. For any units found that do not meet Forest Plan standards and guidelines for detrimental soil conditions during pre- or post-implementation, mitigations will be implemented, restoring soil conditions to within acceptable parameters. Mitigations are described in Appendix B-1 of the FEIS at 445-461.

Appellant Statement #60: Appellant states the fisheries and stream impacts sections in the FEIS do not make a distinction between actions that are occurring on steep slopes (greater than 30 percent grade)

versus those that are occurring on less steep slopes, but instead make conclusory assertions of no or minimal cumulative effects in violation of NEPA. LOWD at 30.

Response: I find that the watershed and aquatics discussion in the FEIS contains adequate analysis of the actions proposed for slopes greater than 30 percent grade.

The CEQ regulations at 36 CFR 220.4(f) states that cumulative effects analysis shall be carried out in accordance to 40 CFR 1508.7, which defines cumulative impacts as stated previously. 40 CFR 1502.16(a - h) directs agency analysis of direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1502.14 directs the agency to present the environmental impacts of the proposal and the alternatives in comparative form.

The ROD at 27 identifies that ground-based harvesting (forwarder and tractor) will take place on slopes up to 35% and skyline yarding would take place on slopes greater than 35%. The BMP WS-9 in the ROD at 53 states that ground-based harvest will not normally operate on slopes greater than 30% rise, but small inclusions with greater than 30% rise are included during layout if they can be operated on without causing excessive soil disturbance. The WEPP model analysis depicts potential sediment delivery from the various proposed yarding systems and one of the variable inputs for WEPP is hillslope. FEIS at 121. Therefore, analysis of the direct, indirect, and cumulative effects of activities occurring on slopes greater than 30% was conducted.

Appellant Statement #61: Appellant states that the FEIS never acknowledges or considers the cumulative impacts to soils from all of the activities that will occur in many areas including “repeated, mechanized entries for commercial logging” and other entries from non-commercial thinning, piling and also from burning. LOWD at 29.

Response: I find that the FEIS did disclose the cumulative effects to soils from the proposed activities in areas of previous commercial logging.

The regulation at 36 CFR 220.4(f) states that cumulative effects analysis shall be carried out in accordance to 40 CFR 1508.7, which defines cumulative impacts. The FEIS at 102-105 discusses the effects of the selected alternative on soil resources and how the project complies with soil quality standards. The FEIS at 105-107 specifically addresses expected cumulative effects from the proposed activities and past, ongoing, and reasonably foreseeable future activities including past vegetation management. Best management practices are prescribed to protect the soil resource and monitoring is also prescribed to ensure that standards and guidelines are met. ROD at 37-59.

Appellant Statement #62: Appellant states that the project will increase detrimental soil conditions by 13% on average and that the FEIS does not take a “hard-look at the effects of the long-term widespread soil compaction on soil productivity, watershed function, and future forest health.” HCPC at 66.

Response: I find that the Responsible Official considered the effects of the proposed activities on soil productivity while taking into account the existing detrimental soil conditions.

The regulation at 40 CFR 1502.16 (a -h) directs agency analysis of direct and indirect effects of the proposed action and any alternatives. The FEIS at 99 details the existing detrimental soil conditions within the analysis area. The FEIS at 101-105 details the methodology for analyzing the potential increases in detrimental soil conditions from the proposed activities and the consistency with the

Wallowa-Whitman LRMP standards and guidelines. Changes to detrimental soil conditions are also discussed in the need for pre- and post-implementation monitoring. FEIS at 108. For any units found that do not meet Forest Plan standards and guidelines for detrimental soil conditions during pre- or post-implementation, mitigations will be implemented, restoring soil conditions to within acceptable parameters. Mitigations are described in Appendix B-1 in the FEIS at 445-461.

Appellant Statement #63: Appellant states that the conclusion that the impacts of the Snow Basin project to bull trout will be small in magnitude and duration is unfounded, not supported by the EIS and did not consider climate change, and that the surveys for bull trout appear to be outdated. HCPC at 68 and 69; LOWD at 42.

Response: I find the conclusion that impacts from the project to bull trout will be small in magnitude and duration is supported by the FEIS.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. The regulation at 40 CFR 1502.24 states that agencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements. Likewise, Forest Service guidance on the use of best available science (June 20, 2007) was followed during project planning and states that the NEPA document should identify methods used, reference scientific sources, discuss responsible opposing views, and disclose incomplete or unavailable information. 40 CFR 1502.22.

The discussion on effects to bull trout critical habitat can be found on pages 162-165 of the FEIS. The conclusion that bull trout are no longer present is affirmed by U.S. Fish and Wildlife Service (USFWS) (2010) which is responsible for managing bull trout populations. The draft recovery plan for the Hells Canyon complex recovery unit for the Powder River Core Area shows Eagle Creek as a potential spawning and rearing habitat area that is presently unoccupied (Figure 5, page 35 in USFWS 2002). The USFWS (2010) acknowledges that bull trout no longer exist in the project area but that suitable habitat does exist, hence their designation of critical habitat for bull trout on January 14, 2010 in Eagle Creek and East Fork Eagle Creek. FEIS at 159. I also find that climate change was considered and analyzed as it relates to aquatic species and habitat (FEIS at 150-153; Appendix B-16, FEIS at 530) and specifically how it may affect bull trout (FEIS at 151).

Appellant Statement #64: Appellant states that the FEIS failed to explain how the Oregon Department of Fish and Wildlife (ODFW) status report prepared 15 years ago for bull trout has any bearing on whether or not bull trout are currently present in the Eagle Creek system. HCPC at 69; LOWD at 42. Appellant further states that the Forest relied on outdated surveys to conclude that bull trout were not present in the analysis area, and that their critical habitat would not be adversely affected by the project. HCPC at 69; LOWD at 7, 43 and 44.

Response: I find that the best available science was used to determine if bull trout are present in the Eagle Creek System.

The regulation at 40 CFR 1502.24 states that agencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements. Likewise, Forest Service guidance on the use of best available science (June 20, 2007) was followed during project planning and states that the NEPA document should identify methods used, reference scientific sources,

discuss responsible opposing views, and disclose incomplete or unavailable information. 40 CFR 1502.22.

The use of the best available science includes the use of the ODFW bull trout status report which includes a historical background for when bull trout were last documented in Eagle Creek which was in the mid 1980's. FEIS at 158. The conclusion that bull trout are no longer present is affirmed by USFWS (2010) which is responsible for managing bull trout populations. The USFWS (2010) acknowledges that bull trout no longer exist in the project area but that suitable habitat does exist, hence their designation of critical habitat for bull trout on January 14, 2010 in Eagle Creek and East Fork Eagle Creek. FEIS at 159. The most recent available snorkel surveys were conducted by ODFW between 1991 and 1994. These surveys failed to find bull trout. FEIS at 159.

I also find that critical habitat for bull trout in the project area was adequately analyzed and that some immeasurable effects for sediment and temperature are recognized with long term reductions in sediment inputs as a result of road improvements. FEIS at 159-165. Also there is a moderate risk of cumulative effects from ongoing road maintenance and grazing in the analysis area. These effects and conclusions are supported by the USFWS Letter of Concurrence (USFWS reference 01EOFW00-2012-I-0026) for the project which concludes that the proposed activities may affect, but are not likely to adversely affect designated critical habitat for bull trout. FEIS at 183-184.

For ongoing road maintenance activities, short-term effects from road maintenance activities are minimized by following INFISH standards and guidelines and road maintenance BMPs. For grazing activities, the potential cumulative effects are minimized by meeting INFISH Standards and Guidelines for grazing activities and WWNF PACFISH/INFISH utilization levels. FEIS at 165.

Appellant Statement #65: Appellant states that it is unclear how the Forest Service or US Fish and Wildlife Service (USFWS) can conclude how they have used the "best scientific and commercial data available" for Section 7 consultation when the Forest Service itself acknowledges that the stream survey data "is of limited usefulness." Appellant states that using data from a biologist who walked streams versus extensive snorkeling surveys does not produce quantifiable results that are useful or accurate. HCPC at 70; LOWD at 39, 40, 43, 44 and 45. Appellant concludes that "this grossly insufficient analysis violated the Forest Service's ESA section 7 obligations regarding both Columbia River bull trout and their critical habitat and the Forest Service NEPA obligations regarding including a complete and accurate analysis of all impacts to bull trout and their critical habitat." HCPC at 70. Appellant states that the Forest relied on a faulty biological assessment for consultation with the USFWS and that the FEIS, BA and USFWS ignore the impacts to bull trout, particularly with respect to impacts on temperature. LOWD at 7 and 46.

Response: I find that the best available science and data were used for section 7 consultation.

Forest Service guidance on the use of best available science (June 20, 2007) was followed during project planning. As disclosed in the FEIS, extensive snorkel survey data that ODFW collected between 1991 and 1994 failed to find bull trout and agency biologists have repeatedly visited the project area. FEIS at 159. Critical habitat for bull trout in the project area was adequately analyzed as described previously and some immeasurable effects for sediment and temperature are recognized with long term reductions in sediment inputs as a result of road improvements. FEIS at 159-165. Effects to water temperature as it relates to bull trout critical habitat were specifically addressed on page 163 of the FEIS

where the primary constituent element (PCE) #5 for water temperature was addressed as it relates to this project.

Appellant Statement #66: Appellant states that the Forest failed to quantify the risk of cumulative effects to bull trout critical habitat in a meaningful way and that stating they will follow INFISH standards and guidelines “does not substitute for the agency’s duty to actually analyze the cumulative effects.” Appellant concludes that the Forest Service’s determination regarding impacts to bull trout is unsubstantiated and that the cumulative effects analysis was cursory. HCPC at 71 and 73; LOWD at 31.

Response: I find that potential cumulative effects to bull trout critical habitat were adequately addressed and summarized on page 165 of the FEIS in accordance with 40 CFR 1508.7 and 36 CFR 220.4(f).

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. A detailed analysis of cumulative effects as it relates to temperature, fine sediment and water quality effects on fish species, including bull trout can be found on pages 143-157 of the FEIS and in Appendix B10, pages 491-496 of the FEIS. Cumulative effects for all activities are rated as low except for range activities and road maintenance activities, which were rated as moderate. FEIS at 156 and 157. Low, moderate and high risk definitions for cumulative effects are discussed on page 143 of the FEIS.

Appellant Statement #67: Appellant states that the decision violates INFISH and NFMA because it prioritizes economic and timber outputs over more ecologically protective concerns. LOWD at 7, 57 and 58.

Response: I find that the decision does not violate INFISH or NFMA and that the Responsible Official selected an alternative within the scope of the FEIS.

The regulation at 36 CFR 220.4(c) requires the Responsible Official to complete the environmental document review before making a decision on the proposal, consider the environmental documents, public and agency comments (if any) on those documents, and agency responses to those comments; include environmental documents, comments, and responses in the administrative record, consider the alternatives analyzed in environmental document(s) before rendering a decision on the proposal, and make a decision encompassed within the range of alternatives analyzed in the environmental documents.

The primary purposes of the project are to: 1) manage forest composition, structure, and density toward the historic range of variability (HRV) across the landscape and improve sustainability; 2) maintain and increase landscape resilience to reduce the risk of uncharacteristic disturbance, including the risk of high severity stand replacing fires, insect outbreaks and disease; and 3) provide a supply of forest products for the public to utilize, including a supply of materials to local markets. FEIS at 2 and 3. Alternative 3 will provide approximately 482 acres less of wood products for the local economy than alternative 2 (proposed action) would have. See summary of alternative 2 and 3 activities, FEIS at 25 and 34. The decision to select Alternative 3 will reduce the amount of temporary roads built over Alternative 2 and would eliminate any temporary road construction in the Eagle Creek Wild and Scenic Area. FEIS at 9 and 10. In addition, Alternative 3 would not harvest any trees over 21 inches, except grand fir, excessive mistletoe infestations on Douglas fir and where large trees are affecting the health and vigor of aspen

stands. ROD at 8. The selected alternative will promote more LOS forest across the landscape. As documented above, the Responsible Official considered numerous ecological factors in her decision and as such, I find that the decision to select Alternative 3 does not “promote economic and timber outputs over more ecologically protective concerns” as asserted by appellant.

Appellant Statement #68: Appellant states that the FEIS’ discussion of water temperature issues is inconsistent, confusing and violates NEPA and the ESA. Appellant states that the discussion focuses on the fact that Eagle Creek is not listed as temperature impaired by Oregon DEQ; appellant asserts that the standard set by DEQ is too high. LOWD at 45. Appellant states that Eagle Creek regularly fails to comply with the INFISH RMO for temperature, which is relevant because Eagle Creek is designated as critical habitat for Columbia River bull trout. LOWD at 45 and 46.

Response: I find that water temperature discussion is adequate and complies with NEPA because a full disclosure of water temperature data and how it relates to fish and aquatic species is found on pages 131-137 and 139-140 of the FEIS.

The regulation at 40 CFR 1502.24 states that agencies shall insure the professional integrity including scientific integrity of the discussions and analyses in environmental impact statements. Likewise, Forest Service guidance on the use of best available science (June, 20, 2007) states that the NEPA document should identify methods used, reference scientific sources, discuss responsible opposing views, and disclose incomplete or unavailable information (40 CFR 1502.22) was followed during project planning. Finally, the regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects.

The analysis does not violate ESA because USFWS has been consulted on the project in relation to bull trout critical habitat. These effects conclusions are supported by the USFWS Letter of Concurrence (USFWS reference 01EOFW00-2012-I-0026) for the project which concludes that the proposed activities may affect, but are not likely to adversely affect designated critical habitat for bull trout. FEIS at 183-184.

The water temperature standards set by the State of Oregon Department of Environmental Quality (ODEQ) have been approved by the U.S. Environmental Protection Agency (US EPA) and are beyond the scope of this document because the Forest does not have any control over State standards.

Eagle Creek may not currently meet the INFISH RMO temperature standards and this is disclosed in water temperature collected by the USFS. FEIS at 142. I find that the project will not violate INFISH because, although some thinning will occur in RHCAs, it will not occur within 200 feet of category 1 streams and within 100 feet of category 2 streams, which meet the minimum requirement for INFISH RHCA widths for these stream categories and are sufficient to prevent the removal of trees that provide stream shading. FEIS at 135. Prescribed burning in RHCAs will be of low intensity and is not expected to affect stream shading because only smaller diameter trees and shrubs (≤ 8 inch DBH) are expected to be killed and understory trees of this size typically do not provide significant levels of stream shading. FEIS at 136. The INFISH RMO for stream temperature is also addressed on page 179 of the FEIS and states that there will be no increases in stream temperature.

Appellant Statement #69: Appellant states that the Forest failed to quantify the risk of cumulative effects to redband trout in a meaningful way and that stating they will follow INFISH standards and

guidelines “does not substitute for the agency’s duty to actually analyze the cumulative effects.” Appellant concludes that the Forest Service’s determination regarding impacts to redband trout is unsubstantiated and is not based on accurate data, given that Forest has not conducted abundance surveys. HCPC at 72; LOWD at 37 and 38.

Response: I find that the risk of cumulative effects to redband trout is meaningfully quantified in the cumulative effects discussion for redband trout in compliance with 40 CFR 1508.7. FEIS at 167.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects.

A more detailed analysis of cumulative effects as it relates to temperature, fine sediment and water quality effects on fish species, including redband trout can be found on pages 143-157 of the FEIS and in Appendix B-10. FEIS at 491-496. Cumulative effects for all activities are rated as low except for range activities and road maintenance activities, which were rated as moderate. FEIS at 156 and 157. Low, moderate and high risk definitions for cumulative effects are discussed on page 143 of the FEIS. Based on surveys conducted by the Forest and by the ODFW, the Forest concluded that redband trout are widely distributed in the analysis area and occupy all Category 1 streams. FEIS at 112-113 and 166.

Appellant Statement #70: Appellant states that the Forest Service relied on outdated information for its INFISH analysis because it relied on information from the 1997 Eagle Creek Watershed Analysis. LOWD at 38 and 39. Appellant states that the information from 1997 does nothing to inform the public about the condition (sediment levels, channel conditions, etc.) of the watershed today and that a new watershed analysis is needed. LOWD at 40 and 41.

Response: I find that the INFISH analysis based on the 1997 Eagle Creek Watershed Analysis was sufficient because the condition of the watershed has not changed considerably from what it was during the 1997 watershed analysis.

Forest Service guidance (June 20, 2007) regarding the use of best available science was followed during project planning. The need for iterating a watershed analysis would arise if conditions changed in the watershed such that the original document was no longer valid. The Forest has not re-assessed the Eagle Creek watershed because of the lack of large scale disturbances during the period of time from 1997 to the present. Most effects in the watershed from past road building, timber harvest and grazing were already on the landscape when the 1997 watershed analysis was completed. There has been some small amounts of pile burning and underburning since the 1997 watershed analysis and six timber sales each less than 1,000 acres when acreage data was available (See Appendix B10 at 491-494). Some additional insect outbreaks have occurred from 1989 to 1996 in the analysis area. FEIS at 468. Large fires have not occurred in the analysis area since the 1997 watershed analysis. The only fire over 100 acres occurred in 1985. Appeal Record, Fuels Report at 12. There are no laws or regulations that require an iteration of a watershed analysis after a certain time period. See INFISH 1995, pages A14-A15.

Appellant Statement #71: Appellant states that the overall cumulative effects analysis regarding aquatic resources is seriously flawed because the analysis area used should have been broader than the area used to analyze the direct and indirect effects. Appellant states that by doing so, the agency is downplaying the cumulative effects to aquatic resources. HCPC at 73; LOWD at 30.

Response: I find that the FEIS appropriately set the spatial boundary for the aquatic resources' cumulative effects analysis.

The regulation at 36 CFR 220.4 (f) states that cumulative effects analysis shall be carried out in accordance to 40 CFR 1508.7, which defines cumulative impacts. Furthermore, CEQ's "Considering Cumulative Effects Under NEPA" guidance states: "it is not practical to analyze the cumulative effects of an action on the universe; the list of environmental effects must focus on those that are truly meaningful. The boundaries for evaluating cumulative effects should be expanded to the point at which the resource is no longer affected significantly or the effects are no longer of interest to affected parties." Considering Cumulative Effects guidance at 8.

The Forest Service Handbook (FSH) 1909.15 Section 15.2 states, "Spatial and temporal boundaries are the two critical elements to consider when deciding which actions to include in a cumulative effects analysis. Spatial and temporal boundaries set the limits for selecting those actions that are most likely to contribute to a cumulative effect. The effects of those actions must overlap in space and time for there to be potential cumulative effects." The FSH 1909.15 Section 15.2a goes on to state, "Spatial boundaries define the affected area for each resource indicator. The affected area is the area in which a specific resource may be affected by management actions; whether they are past, present, or future. Affected areas can vary in size by resource and by the type of effect that may occur."

The FEIS at 144-155 specifically addresses expected cumulative effects for aquatic resources from the proposed activities and past, ongoing, and reasonably foreseeable future activities. The FEIS at 110 specifies the effects analysis area used for all direct, indirect, and cumulative effects for aquatic resources. This area was determined by accounting for the downstream extent of measurable effects to aquatic habitat from the proposed activities. In accordance with CEQ guidance, effects were documented until they were no longer measurable. This was determined through modeling, literature, and professional judgment.

Appellant Statement #72: Appellant states that the Forest Service failed to point out that the authors of a research paper on pool spacing in forest channels (Montgomery et al, 1995) were "careful to point out that any correlations regarding pool habitat and large woody debris in steeper streams was based on a limited data set" and that they agency should not rely on such inconclusive data to explain, in part, why pool habitat is lacking in the project area. HCPC at 74; LOWD at 32, 33 and 39.

Response: I find that the FEIS met the regulatory requirements of 40 CFR 1502.16 in the analysis and disclosure of the environmental consequences of the alternatives.

The regulation at 40 CFR 1502.24 states that agencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements. Likewise, FS guidance on the use of best available science (June 20, 2007) states that the NEPA document should identify methods used, reference scientific sources, discuss responsible opposing views, and disclose incomplete or unavailable information (40 CFR 1502.22); this guidance was followed during project planning.

The pool frequency RMO in INFISH (1995) takes into account stream width and does not take into account stream gradient. The majority of the streams (92%) in the analysis area are higher gradient Rosgen A and B channel types with gradient >2% (FEIS at 114) with only 12.6 miles of stream as lower gradient Rosgen C channel types. This explains why the frequency of pools is likely naturally below the

desired INFISH RMO for pool frequency. Rosgen (1996) also found pool to pool spacing adjusts inversely to stream gradient. Thus, I find that the Forest properly utilized relevant research as well as on-the-ground knowledge to determine pool habitat in the project area.

Appellant Statement #73: Appellant states that the biological evaluation for fisheries statement that analysis beyond the project area “would likely result in dilution of any effects” is inconsistent with NEPA. HCPC at 75; LOWD at 34. Appellant states that it is uncertain whether the Forest Service “even attempted to comply with NEPA in terms of the cumulative effects analysis” because the agency used ESAs definition of cumulative effects versus CEQs definition of cumulative effects, which led to the agency not considering a broad enough area for their cumulative effects analyses. HCPC at 74 and 75; LOWD at 31, 33, 34 and 35. Appellant further states that the agencies consideration of “only activities that pose a risk of cumulative effects” downplays CEQs definition of considering “individually minor but collectively significant actions taking place over a period of time.” HCPC at 75; LOWD at 35.

Response: I find that the FEIS appropriately set the spatial boundary for the aquatic resources cumulative effects analysis. The boundaries of this analysis include two subwatersheds and extend downstream beyond the project boundary; a description of those boundaries can be found in the FEIS at page 110. The same boundaries can be used for ESA consultation and NEPA analysis.

The regulation at 40 CFR 1502.14 directs the agency to present the environmental impacts of the proposal and the alternatives in comparative form. The regulation at 40 CFR 1508.7 defines a cumulative impact as the “impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”

The Forest Service Handbook at 1909.15 Section 15.2 states, “Spatial and temporal boundaries are the two critical elements to consider when deciding which actions to include in a cumulative effects analysis. Spatial and temporal boundaries set the limits for selecting those actions that are most likely to contribute to a cumulative effect. The effects of those actions must overlap in space and time for there to be potential cumulative effects.” FSH 1909.15 Section 15.2a goes on to state, “Spatial boundaries define the affected area for each resource indicator. The affected area is the area in which a specific resource may be affected by management actions; whether they are past, present, or future. Affected areas can vary in size by resource and by the type of effect that may occur.”

The FEIS at 144-155 specifically addresses expected cumulative effects for aquatic resources from the proposed activities and past, ongoing, and reasonably foreseeable future activities. The FEIS at 110 specifies the effects analysis area used for all direct, indirect, and cumulative effects for aquatic resources. This area was determined by accounting for the downstream extent of measurable effects to aquatic habitat from the proposed activities. In accordance with CEQ guidance, effects are described until they are no longer measurable. This may be determined through modeling, literature, or professional judgment.

The stated measurable cumulative effects for sediment of this project result primarily from culvert replacements/installations. These effects are expected to be minor measurable effects for approximately 0.125 miles below the culvert and replacements/installation sites and last for 4 months. FEIS at 124-126. The analysis area extends well downstream of where these actions are to occur and encompasses the watershed where effects are expected to occur.

Thus, I find that “individually minor but collectively significant actions taking place over a period of time” have been addressed in the FEIS. A detailed analysis of cumulative effects as it relates to temperature, fine sediment and water quality effects on fish species, including redband trout can be found on pages 143-157 of the FEIS and in Appendix B10 pages 491-496 of the FEIS.

Appellant Statement #74: Appellant states that the Forest Service failed to account for the cumulative effects of irrigation diversions outside the analysis area and failed to consider impacts of grazing beyond private lands that are within and adjacent to the project area. LOWD at 30 and 31.

Response: I find that the FEIS appropriately addresses cumulative effects for the proposed activities and past, ongoing, and reasonably foreseeable future activities that overlap in time and space.

The regulations at 36 CFR 220.4 (f) states that cumulative effects analysis shall be carried out in accordance to 40 CFR 1508.7, which defines cumulative impacts. The Forest Service Handbook at 1909.15 Section 15.2 states, “Spatial and temporal boundaries are the two critical elements to consider when deciding which actions to include in a cumulative effects analysis. Spatial and temporal boundaries set the limits for selecting those actions that are most likely to contribute to a cumulative effect. The effects of those actions must overlap in space and time for there to be potential cumulative effects.” Irrigation diversions and grazing outside the analysis area are therefore not considered in the cumulative effects analysis because they do not overlap the potential effects from the proposed activities in time or space.

The FEIS at 116 and 150 does describe the Brooks Ditch, an irrigation ditch located on Little Eagle Creek running through the project area, and its effects on streamflow and aquatic habitat for redband trout and other aquatic species. The FEIS at 150 states that there is a low risk of cumulative effects with the diversions of irrigation water in the analysis area.

I also note that appellants did not raise a concern regarding cumulative effects of irrigation diversions or grazing on private lands in their comment letters. Appeal Record, Section D, DEIS comments. The regulation at 40 CFR 1503.3 specifically requires that comments on an environmental impact statement or on a proposed action shall be as specific as possible. If a concern is not raised either during scoping or in comment, the Forest cannot respond to the concern. Appeal Record, Section D, DEIS comments. Thus, the Forest focused its cumulative effects analysis where the projects would overlap in time and space and did not expand the boundary as the effects of those activities would not likely contribute to a cumulative effect, when combined with this project.

Appellant Statement #75: Appellant states that logging in RHCAs is prohibited unless needed to “acquire desired vegetation characteristics needed to attain Riparian Management Objectives” and that the FEIS’s proposal to log in RHCAs is “to meet the silvicultural prescription for the stand” which violates INFISH and NFMA. LOWD at 40.

Response: I find that the activities within the RHCA in the selected alternative meet the INFISH standard and guidelines, but that clarity is needed in the silvicultural prescription.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. The National Forest Management Act Sec. 6(h)(1)(i) states that

“Resource plans and permits, contracts, and other instruments for the use and occupancy of National Forest System lands shall be consistent with the land management plans.

The ROD at 9 states that silvicultural treatments on approximately 38 acres within RHCAs were proposed in order to improve stand conditions while facilitating treatment in adjacent upland units. INFISH states: “apply silvicultural practices for Riparian Habitat Conservation Areas to acquire desired vegetation characteristics where needed to attain Riparian Management Objectives.” INFISH at A-7. The FEIS at 137-144 fully documents the effects of the proposed activities on riparian management objectives (RMOs) and details the potential impacts to fine sediment, water temperature, large woody debris and pool habitats, along with bank stability, lower bank angle, and width-to-depth ratios. The impact to RHCAs from intermediate thinning is limited to 38 acres under the selected alternative. ROD at 29.

While I am satisfied that the impacts to RMOs from thinning these 38 acres have been described in the FEIS, I would like to see clarity in the silviculture prescription regarding these acres and how thinning will help attain RMO objectives. I recommend instructing the Responsible Official to document this in an addendum to the silviculture prescription and to make this addendum available to appellants via posting on the Forest’s website for the project.

Appellant Statement #76: Appellant states that paleontological resources and the Martin Bridge limestone formation will be threatened by “unnecessary temporary road building and tractor logging.” HCPC at 85.

Response: I find that the FEIS appropriately addresses the potential effects from the proposed activities to paleontological resources, including the Martin Bridge limestone formation.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. The regulation at 40 CFR 1502.14 directs the agency to present the environmental impacts of the proposal and the alternatives in comparative form. The regulation at 40 CFR 1502.14(f) directs the agency to include appropriate mitigation measures not already included in the proposed action or alternatives.

The FEIS at 349-350 discusses the potential effects to paleontological resources from temporary road construction and harvest activities. The 1981 discovery location of the Martin Bridge limestone formation is not within any treatment area and therefore would not be affected by this vegetation management project. However, temporary road construction activities (blading of roads to get into stand locations) will affect outcrops of the Martin Bridge Limestone. Activities related to vegetation management projects (skidding, underburning, etc.) will have less effect on paleontological resources because of lack of contact with the bedrock in the formation. Tractor units, on the other hand, would have the most effect to potential paleontological resources if continually running over outcrops. Rubber tires or tracked tractors would be used to prevent fracturing and crushing of the bedrock, protecting any vertebrate fossils inside. Likewise, the FEIS prescribes mitigation by stating that a trained paleontological staff member will be on-site to observe all temporary road construction in units proposed for ground-based logging activities and temporary road construction. FEIS at 349-350.

Wildlife

Appellant Statement #77: Appellant states that the Forest Supervisor's decision was designed to take into account the habitat needs for the American marten does not give equal weight to the other Management Indicator Species (MIS) such as the Rocky Mountain elk, which is a failure to look at the cumulative benefits for all of the MIS listed in the Forest Plan, especially elk for which there is a deficit of higher elevation late season forage primarily due to canopy closure. BC at 4.

Response: I find that the Responsible Official considered the habitat needs of all management indicator species (MIS) and considered cumulative effects to species that may be potentially affected by the project.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. In addition, the FSM at 2621.3 guides the agency in analyzing proposed actions, conduct habitat analyses to determine the cumulative effects of each alternative on management indicators selected in the plan or project area.

The habitat needs and cumulative effects for all MIS species were analyzed and considered. FEIS at 212-254; ROD at 6-7. The FEIS at 251 includes an analysis of the potential habitat impacts to Rocky Mountain elk, which states that reductions in tree density from commercial and non-commercial forest treatments and prescribed fire would increase available elk forage. The cumulative effects analysis for elk included activities that may impact elk habitats within the Eagle Creek watershed that are expected to reduce stand densities and available cover while increasing available forage. FEIS at 253.

The regulation at 36 CFR 220.4(c) requires the Responsible Official to complete the environmental document review before making a decision on the proposal, consider the environmental documents, public and agency comments (if any) on those documents, and agency responses to those comments; include environmental documents, comments, and responses in the administrative record, consider the alternatives analyzed in environmental document(s) before rendering a decision on the proposal, and make a decision encompassed within the range of alternatives analyzed in the environmental documents. In compliance with the regulation, the Responsible Official selected an alternative within the range displayed in the FEIS. As described in the rationale for the decision, the Responsible Official considered how the selected alternative would meet the purpose and need and responds to issues raised by the public, in addition to other factors she considered prior to making her decision. ROD at 6-10.

Appellant Statement #78: Appellant states that the "FEIS fails to adequately analyze the adverse impacts of further reducing wildland fire, especially stand replacement high-intensity fire, on wildlife species dependent in whole or in part upon post-fire habitat." HCPC at 55.

Response: I find that the FEIS adequately analyzed the impacts to wildlife species dependent in whole or part upon post-fire habitat.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects.

The FEIS at 245 states that “currently, a large portion of acres within Snow Basin are at increased risk to insect mortality, disease, and stand-replacement fire relative to historic levels of disturbance. Such overstocked stand conditions also increase the potential for future pulses of conifer mortality that provide suitable habitat for black-backed woodpeckers. By reducing stand densities, the action alternatives would decrease the potential for habitat availability in the form of stand-replacing fires or large areas of insect related conifer mortality.”

In addition, the FEIS states that “remaining potential black-backed woodpecker habitat would occur in untreated areas within and outside of wildlife refugia, RHCAs, and MA-15 (Old-Growth) areas as well as additional areas where higher stand densities are maintained within connectivity corridors.” FEIS at 245. Modeling shows that over 700,000 acres of upland conifer stands currently have the potential for stand-replacement fire on the Forest. FEIS at 241. Reduction of fuels from this project equates to approximately 2 percent of the total Forest acres in upland conifer currently at risk of stand-replacing fires. FEIS at 242.

Appellant Statement #79: Appellant contends that the best available science “clearly shows that severe disturbance is characteristic and is necessary to sustaining native biodiversity.” HCPC at 55. Appellant points out that high severity fires are not necessarily “uncharacteristic” and that these fires are doing important ecological work, helping to keep “countless wildlife species alive.” HCPC at 55.

Response: I find that the FEIS did consider the best available science when analyzing the impacts to wildlife species.

The regulation at 40 CFR 1502.24 requires the agency to insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements. Forest Service guidance (June 20, 2007) regarding the use of best available science during project planning was followed.

Impacts to wildlife species that would potentially occur if no action were taken are discussed in the FEIS at 189-262. References regarding the science used in the analysis are documented throughout the FEIS and in the references section of the document. FEIS at 395 and 401-405. One purpose and need of the project is to reduce the risk of “uncharacteristic disturbance.” FEIS at 7. The FEIS does note that some species, such as the black-backed woodpecker, need and prefer burned habitats to survive. See response to Appellant Statement #80 and #81 for additional information. The project does not claim to be able eliminate high intensity fires, as described in the response to comments. FEIS at 583.

Appellant Statement #80: Appellant states that because of fire suppression, there are less areas where high intensity fire has burned (and not salvaged) now than there was historically and because of this, habitat for the black-backed woodpecker has been diminished or degraded. HCPC at 58 and 59. Appellant states that the FEIS arbitrarily claims that the unlogged portions of the project area will suffice for black-backed woodpeckers, yet the Forest Service failed to identify how many woodpeckers there are and how much habitat there presently is and how much they may need in order to ensure species viability. HCPC at 60.

Response: I find that the FEIS provides sufficient analysis for black-backed woodpeckers.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency

will consider cumulative effects. In addition, the FSM at 2621.3 guides the agency in analyzing proposed actions, conduct habitat analyses to determine the cumulative effects of each alternative on management indicators selected in the plan or project area.

The viability of black-backed woodpecker populations are determined by availability of suitable habitat which includes high density patches of snags. An analysis of snags is included in the FEIS at 242-247. The Regional Forester's Forest Plan Amendment #2 contains standards and guidelines that address the historical range of variability (HRV). Because the distribution, quality and quantity of habitat largely determine the potential for a wildlife species to exist at viable levels, HRV becomes an important habitat indicator for wildlife species. By managing habitat within the HRV, adequate habitat will exist for associated wildlife species since they existed at viable levels under those conditions previously. FEIS at 213. As assessment of LOS at the landscape scale was conducted by the Forest. This landscape scale assessment documents how viable populations of management indicator species will be retained across the Forest. Appendix B-10, FEIS at 465.

Appellant Statement #81: Appellant states that the consequences of the Forest's goals for reducing or eliminating high intensity fire occurrences and high intensity fire areas (which serves as black-backed woodpecker habitat) and reducing insect occurrence and impacts must be addressed for black-backed woodpeckers and other regional species of concern. HCPC at 60.

Response: I find that the impacts to black-backed woodpeckers and other species of concern were addressed.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. In addition, the FSM at 2621.3 guides the agency in analyzing proposed actions, conduct habitat analyses to determine the cumulative effects of each alternative on management indicators selected in the plan or project area.

The FEIS at 24 states that "currently, a large portion of acres within Snow Basin are at increased risk to insect mortality, disease, and stand-replacement fire relative to historic levels of disturbance. Such overstocked stand conditions also increase the potential for future pulses of conifer mortality that provide suitable habitat for black-backed woodpeckers. By reducing stand densities, the action alternatives would decrease the potential for habitat availability in the form of stand-replacing fires or large areas of insect related conifer mortality."

The FEIS further states that "remaining potential black-backed woodpecker habitat would occur in untreated areas within and outside of wildlife refugia, RHCAs, and MA-15 (Old-Growth) areas as well as additional areas where higher stand densities are maintained within connectivity corridors." FEIS at 245. Modeling shows that over 700,000 acres of upland conifer stands currently have the potential for stand-replacement fire on the Forest. FEIS at 241. Reduction of fuels from the Snow Basin project equates to approximately 2 percent of the total Forest acres in upland conifer currently at risk of stand-replacing fires. FEIS at 242. Thus, the Forest adequately analyzed how the project has the potential to reduce the effects of high intensity fire.

Impacts to other species of concern were address at FEIS for American peregrine falcon (FEIS at 192); bald eagle (FEIS at 193); Lewis' woodpecker (FEIS at 194); white-headed woodpecker (FEIS at 197); Canada lynx (FEIS at 199); gray wolf (FEIS at 200); California wolverine (FEIS at 202); Pacific fisher (FEIS at

204); Hells Canyon land snail (FEIS at 205); Columbia spotted frog (FEIS at 206); Inland tailed frog (FEIS at 208); Johnson's hairstreak (FEIS at 210); American marten (FEIS at 223); northern goshawk (FEIS at 228); pileated woodpecker (FEIS at 234); primary cavity excavators (FEIS at 244); Rocky Mountain elk (FEIS at 250); and neotropical migratory birds (FEIS at 258).

Appellant Statement #82: Appellant states that the Snow Basin FEIS "does not identify the amount and quality of habitat necessary to maintain viable populations of the affected MIS on the WWNF and how much of the requisite quality of habitat will remain post-Snow Basin." HCPC at 76. Appellant also states that the FEIS evaluates impacts to old growth dependent species at too small of a geographic scale. Appellant states that "because some old growth dependent species have very large home ranges, the project area LOS is heavily fragmented, and the Forest Service lacks fundamental population monitoring data, this scale of analysis is inappropriate. Rather these species should be evaluated at the Forest-wide level." HCPC at 76.

Response: I find that the FEIS appropriately analyzes the quality and quantity of LOS habitat and does so at the appropriate scale (both project level and forest-wide).

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects, which are considered to be the impact on the environment which results from the incremental impact of the action which added to other past, present, and reasonably foreseeable future action regardless of what agency (federal or nonfederal) or person undertakes such other actions. The analysis of cumulative effect begins with the consideration of direct and indirect effects on the environment that are expected or likely to result for the alternative proposal for agency actions.

CEQ's "Considering cumulative effects under NEPA" guidance states "it is not practical to analyze the cumulative effects of an action on the universe; the list of environmental effects must focus on those that truly meaningful. The boundaries for evaluating cumulative effects should be expanded to the point at which the resource is no longer affected significantly or the effects are no longer of interest to affect parties." Considering Cumulative Effects guidance at 8.

According to the FEIS, "both MSLT (multi-storied LOS) and SSLT (single-storied LOS) are present in the Snow Basin project area. Existing MSLT and SSLT total 3,586 and 961 acres, respectively. However, for several biophysical environments (BPEs), the HRV analysis identifies departure from HRV. All BPEs show that the amount of multi-storied LOS is within the range estimated to have existed historically, with the exception of hot, dry ponderosa pine stands. In contrast, single-storied LOS stands are currently deficient within the lower elevation, warm and dry ponderosa pine and Douglas-fir stands." FEIS at 213.

In addition to departure from HRV in total acres, the current patch size and spatial distribution of LOS within the Snow Basin project area shows a fragmented arrangement of stands. The FEIS notes that large gaps are present throughout the project area, with concentrations of LOS noted in the northeastern portion. The FEIS documents that existing average patch sizes for MSLT and SSLT are 68 acres and 57 acres, respectively, while historically patch sizes for MSLT and SSLT in the Blue Mountains averaged 83 acres and 82 acres, respectively. FEIS at 213.

Analysis for old-growth dependent species was conducted at the appropriate scale for management indicator species, which varies depending on their life history characteristics and is addressed in the FEIS

for American marten (FEIS at 223); northern goshawk (FEIS at 228); pileated woodpecker (FEIS at 234); primary cavity excavators (FEIS at 244); and Rocky Mountain elk (FEIS at 250). Lastly, the FEIS at Appendix B-2 documents the Forest's analysis of LOS at the landscape level. FEIS at 465. Thus, I find that the FEIS does analyze MIS habitat at both the project and forest scale.

Appellant Statement #83: Appellant states that with regards to thresholds, "the Forest Service failed to provide reasonable explanations for the environmental effects on several species because the FEIS made conclusions based on the forest-wide impacts to species." HCPC at 76; LOWD at 46. Appellant states that for the American marten and Pacific fisher, the FEIS concluded that the project would not have substantial effects or that the effects would only be slightly negative. HCPC at 76 and 77; LOWD at 47. Appellant states that these conclusions based on a forest-wide analysis are "patently unreasonable and unsupported by the analysis in the FEIS" because no information is provided about suitable habitat in other areas, or the population on a forest-wide or bioregional level. HCPC at 77; LOWD at 47.

Response: I find that the Forest provided reasonable explanations for the environmental effects to wildlife species and that the conclusions are supported by the analysis.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects, which are considered to be the impact on the environment which results from the incremental impact of the action which added to other past, present, and reasonably foreseeable future action regardless of what agency (federal or nonfederal) or person undertakes such other actions. The analysis of cumulative effect begins with the consideration of direct and indirect effects on the environment that are expected or likely to result for the alternative proposal for agency actions.

CEQ's "Considering cumulative effects under NEPA" guidance states "it is not practical to analyze the cumulative effects of an action on the universe; the list of environmental effects must focus on those that truly meaningful. The boundaries for evaluating cumulative effects should be expanded to the point at which the resource is no longer affected significantly or the effects are no longer of interest to affect parties." Considering Cumulative Effects guidance at 8.

Information about suitable marten habitat in areas outside the project area was disclosed in the FEIS. Specifically, the FEIS states that "areas were identified within the Blue Mountains that may pose barriers to marten movement across larger landscapes. None of these areas are located within or adjacent to the Snow Basin project area. Landscapes were also modeled for permeability at a finer scale, using cover types, road densities, housing density (human development), slope, and elevation and generated permeability coefficients, which ranged from 0.1 (nearly impermeable) to 1.0 (highly permeable). Permeability in the southern Wallowas varies, with lowest ratings occurring at lower elevations that lack suitable marten habitat, and highest ratings located at higher elevations below alpine habitats in areas with more mesic conifer stands and few or no open roads." FEIS at 220. Figure 10 in the FEIS at 221 identifies marten habitat outside of the project area.

The conclusion to marten was considered at the landscape and Forest scale. As stated in the FEIS, "because this project impacts less than 0.003 percent of suitable habitat across the Forest, the overall direct, indirect and cumulative effects will result in a small negative effect to marten habitat. The decrease in habitat quality will be insignificant at the scale of the WWNF. The Snow Basin project may reduce habitat permeability at a localized scale, but impacts at the WWNF scale would be

immeasurable. Post treatment availability of source habitats would continue to exceed the threshold of 40 percent of the historical amount in the Eagle Creek watershed under all action Alternatives, thereby continuing to contribute to habitat distribution and species viability on the WWNF.” FEIS at 225.

Information regarding suitable fisher habitat outside the project area was also disclosed in the FEIS. Specifically, the FEIS states that fisher habitat within 6 miles of the project area is currently estimated to exceed 20,000 acres. FEIS at 205. Figure 7 in the FEIS shows the amount of suitable habitat outside the project area. FEIS at 203.

The conclusion to fisher was considered at the project and forest scale because of the large home range of this species. FEIS at 205. Human disturbance under all action alternatives could have short-term, indirect effects on fisher, although the risk of disturbance to fisher is considered extremely low. All action alternatives would remove potential habitat via timber harvest and prescribed burning. However, habitat available within 6 miles of the project area is abundant and habitat loss at levels occurring in Snow Basin is unlikely to substantially impact fisher habitat availability at the landscape scale. Action alternatives may impact individuals or habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population. FEIS at 205.

Appellant Statement #84: Appellant states that the negative impacts disclosed in the FEIS to the American marten are “entirely unnecessary” because marten habitat “exclusively overlaps moist mixed conifer forest types where fuels reduction is unwarranted.” HCPC at 78. Appellant states that the discussion of impacts to marten was inadequate and did not include a discussion of impacts to RHCA (which martens use as travel corridors) or an adequate discussion of removal of down wood or cumulative effects of future timber sales. LOWD at 51 and 52. Appellant also states that the Forest inappropriately relied on the withdrawn travel management plan to conclude that replacement marten habitat will be made available. LOWD at 51 and 52. Appellant also states that the FEIS failed to mention the parameters of the prescription adopted for marten. LOWD at 53.

Response: I find that the FEIS adequately disclosed the impacts to the American marten; appellant’s statement that the impacts are “unnecessary” is the opinion of the appellant.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. Impacts to marten were specifically addressed in the FEIS at 219-226. Impacts to travel corridors were addressed in the FEIS starting at page 220. In addition, modifications to the prescriptions were made in order to maintain existing marten habitat requirements. FEIS at 30 and 32. Impacts to down wood are addressed in the FEIS at 240-247. Potential cumulative effects to marten habitat from expected future timber sales are addressed in the FEIS at 225.

The Forest’s Travel Management Plan (TMP) was appropriately considered under the cumulative effects section of the analysis. Access within the analysis area is likely to change pending the outcome of the revised travel management plan. With the eventual implementation of the TMP, some roads that are open now will be closed by promulgation. Some roads within the project area currently identified as closed (maintenance level 1) may be opened for motorized travel by full size vehicles and/or OHVs. In the future, there is expected to be a net reduction of open roads within the project area, which will provide additional habitat that is free from disturbance from motor vehicles. FEIS at 225.

Parameters of the prescription adopted for marten are specified in the FEIS, which states that harvest units in management area 15 would retain an additional 10-25 square feet of basal area per acres; this treatment would occur over approximately 2,784 acres. FEIS at 32.

Appellant Statement #85: Appellant states that the “Service’s determination of the project’s impacts to peregrine falcons was unreasonable because the Forest Service failed to provide reasoned explanations for the conclusion” that the project would “have no impact to peregrine falcon nesting.” Appellant states that because the Forest Service admitted that the area within three miles of the project boundary contains suitable nesting habitat and that it is “unknown whether peregrine occupancy surveys have been conducted” in the area, the Forest “cannot know whether peregrine falcons nest in the areas surrounding the project area or whether falcons use the project area for food sources. Furthermore, the Forest Service admitted that the project may impact localized foraging and change the availability of prey if peregrine falcons exist in the area.” Appellant states that the Forest Service “should have admitted that the information on peregrine falcons was unknown and concluded that the project posed potential threats to peregrine falcons.” HCPC at 79; LOWD at 48.

Response: I find that the determination of the project’s impacts to peregrine falcons was reasonable.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects, which are considered to be the impact on the environment which results from the incremental impact of the action which added to other past, present, and reasonably foreseeable future action regardless of what agency (federal or nonfederal) or person undertakes such other actions. The analysis of cumulative effect begins with the consideration of direct and indirect effects on the environment that are expected or likely to result for the alternative proposal for agency actions.

CEQ’s “Considering cumulative effects under NEPA” guidance states “it is not practical to analyze the cumulative effects of an action on the universe; the list of environmental effects must focus on those that truly meaningful. The boundaries for evaluating cumulative effects should be expanded to the point at which the resource is no longer affected significantly or the effects are no longer of interest to affect parties.” Considering Cumulative Effects guidance at 8.

Peregrine falcons typically nest on cliff faces with a mean cliff height of 35 to 50 meters within 900 meters of water. Cliffs near forested habitat are thought to be preferred over those in shrub-steppe habitats. Appeal Record, wildlife specialist’s report at 14. The project area contains no known suitable nesting habitat but does contain open upland areas that may serve as potential, but marginal, foraging habitat. FEIS at 192. Potential impacts to peregrine falcon are similar under all action alternatives because none of the alternatives alter peregrine nesting habitat and the impacts to peregrine foraging habitat is similar between alternatives. The analysis for peregrine falcon includes the area within 3 miles of the project area boundary since foraging normally occurs within 3 miles of the nest site. Appeal Record, wildlife specialist report at 14; FEIS at 192.

Appellant Statement #86: Appellant states that the “Service’s conclusion that the Snow Basin project will enhance and increase suitable habitat for the Lewis’ woodpecker is unreasonable and not supported by the analysis in the FEIS” because the Forest “admits that aspects of the project, particularly the removal of snags, have the potential to “cause nest failure and possible mortality of nestlings” and that the Forest “also admits that habitat is not likely to be improved by prescribed burns” and that overall

recruitment of snags would be impacted. Appellant states that “based on these observations that were not refuted or discussed in the “Determination” section of the analysis, the Forest Service could not reasonably conclude that the project will be beneficial to Lewis’ woodpeckers.” HCPC at 79; LOWD at 48 and 49.

Response: I find that the Service’s conclusion that the Snow Basin project will enhance and increase suitable habitat for the Lewis’ woodpecker is reasonable and supported by the analysis in the FEIS.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. For Snow Basin, suitable habitat for the Lewis’ woodpecker in the planning area exists in 923 acres of Single Story Large Tree (SSLT) stands with open canopy condition. FEIS at 194. All action alternatives propose treatments in MSLT (multi-storied large trees) that reduce overstory densities and remove understories thereby moving MSLT to SSLT structural condition. FEIS at 194-195.

Appellant Statement #87: Appellant states that the Forest’s conclusion that the Snow Basin project will not affect the Canada lynx relied on the assumption that they are not present in the project area, but that the Forest admits that lynx were confirmed in the area in 1999, thus their conclusion that there are no lynx in the project area is speculative and not substantiated by scientific studies to determine whether lynx actually inhabit the Forest or the project area. HCPC at 80; LOWD at 49.

Response: I find that the conclusion that the Snow Basin project will not affect the Canada lynx is not speculative and is supported by the analysis.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. The Snow Basin analysis documents that “lynx habitat in northeastern Oregon is categorized as a peripheral area, meaning there is no evidence of long-term presence or reproduction that might indicate colonization or sustained use by lynx, but that it may enable the successful dispersal of lynx between populations or subpopulations. The Forest is considered unoccupied habitat because there has not been a verified lynx observation since 1999.” FEIS at 199. In order for this habitat to be considered occupied, there would need to be at least 2 verified records since 1999 or evidence of lynx reproduction on the forest. FEIS at 199. No lynx were detected after extensive surveys between 1991 and 2001. Thus, the project biologist appropriately concluded that there would be “no effect” to the Canada lynx from any of the alternatives for this proposed project because this species is not considered present on the Forest.

Appellant Statement #88: Appellant states that the Forest Service “unreasonably concluded that the project will not contribute to a trend towards federal listing of the Pacific fisher” because the Forest Service relied on the currently-withdrawn travel management plan, which projected that the closure of 12 miles of roads would open additional fisher habitat. Appellant states that because the travel management plan has been withdrawn, there is no reason to believe additional habitat will be created for the fisher and that because the fisher’s habitat will likely be negatively impacted by the project, the Forest Service should have concluded that the project might lead to future listing of the species. HCPC at 80; LOWD at 50 and 51.

Response: I find that the Service reasonably concluded that the project will not contribute to a trend towards listing of the Pacific fisher.

The Forest's Travel Management Plan (TMP) was appropriately considered under the cumulative effects section of the analysis. Access within the analysis area is likely to change pending the outcome of the revised travel management plan. With the eventual implementation of the TMP, some roads that are open now will be closed by promulgation. Some roads within the project area currently identified as closed (maintenance level 1) may be opened for motorized travel by full size vehicles and/or OHVs. In the future, there is expected to be a net reduction of open roads within the project area, which will provide additional habitat that is free from disturbance from motor vehicles. FEIS at 205.

The analysis concluded that human disturbance under all action alternatives could have short-term, indirect effects on fisher, although the risk of disturbance to fisher is considered extremely low. All action alternatives would remove potential habitat via timber harvest and prescribed burning. However, habitat available within six miles of the project area is abundant and habitat impacts at the levels occurring with the Snow Basin project are unlikely to substantially impact fisher habitat availability at the landscape scale. FEIS at 205.

Appellant Statement #89: Appellant states that the "FEIS provided an inadequate explanation of the potential environmental effects of the project on the northern goshawk." Appellant states that the Forest Service's analysis of the effects on the northern goshawk were unreasonable because the Forest offered no explanation for not choosing Alternative 4 which would "retain the highest post-treatment stand diameters." HCPC at 80; LOWD at 53 and 54. Appellant states that "like the analysis for the American marten, the Forest Service relies on the proposed travel management plan to justify its conclusion that the project will not have serious negative impacts on northern goshawks. According to the FEIS, "access within the watershed and across the WWNF will change when the Forest Travel Management Plan is implemented in the summer of 2012." Appellant states that because this travel management plan has been put on hold, the Forest Service impermissibly relied on unreliable future actions to justify the impacts on northern goshawks. HCPC at 80 and 81; LOWD at 54.

Response: I find that the FEIS provided an adequate explanation of the potential environmental effects of the project to the northern goshawk and that the travel management plan was appropriately analyzed under cumulative effects.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. The selection of Alternative 3 is based on a review of the Snow Basin Vegetation Management Project purpose and need, desired conditions, proposed action, and the other alternatives described in the FEIS. ROD at 4.

The recently withdrawn decision for the Forest's travel management plan was appropriately considered under the cumulative effects section of the analysis because this project is expected to be implemented in the reasonably foreseeable future. Access within the watershed and across the Forest will change when the Forest Travel Management Plan is eventually implemented. FEIS at 231.

Impacts to goshawk were based on the availability of habitat and the impacts to that habitat under the alternatives. The viability outcome described in the goshawk MIS assessment indicates that the goshawk is likely well distributed throughout the Forest. This assessment also indicates that source

habitat of the goshawk is still available in adequate amounts, distribution, and quality to maintain goshawk viability in the Blue Mountains and on the Forest. FEIS at 227. Post-treatment availability of source habitats would continue to exceed the threshold of 40 percent of the historical amount in the Eagle Creek watershed under all action alternatives, thereby continuing to contribute to habitat distribution and species viability on the Forest. FEIS at 232.

Appellant Statement #90: Appellant states that the Forest “unreasonably concluded that the project will have no impact on the gray wolf because the FEIS did not consider possible cumulative impacts and erroneously relied on the TMP” which has been withdrawn. LOWD at 50. Appellant states that the FEIS did not consider the potential for the project to reduce potential future wolf habitat, did not discuss whether the project provides suitable habitat and did not consider an increase in human occupation of the area, which might lead to increased wolf presence in human areas and increased conflict. LOWD at 50.

Response: I find that the Forest reasonably concluded that the project will have no impact to the gray wolf and that cumulative impacts were adequately considered.

The regulation at 40 CFR 1502.16 requires the agency to disclose the direct and indirect effects of the proposed action and any alternatives, while the regulation at 40 CFR 1508.7 describes how the agency will consider cumulative effects. Potential habitat and adequate prey occur throughout the project area. FEIS at 200. Habitat and disturbance effects are of concern near denning and rendezvous areas, but no such features have been identified in or adjacent to the project area. FEIS 200. None of the action alternatives would affect wolves or their habitat because there is an abundance of prey and prey is not a limiting factor, and most management activities are compatible with breeding wolf populations with relatively minor considerations for disturbance at dens and rendezvous sites.

In addition, a review of the 2011 ODFW wolf report (Appeal Record, Specialist Reports) shows that the nearest wolf pack, the Imnaha Pack, does currently utilize habitat that overlaps with the Snow Basin Project. While a wolf may migrate through the area, no denning or rendezvous sites are known, and as such, the Forest did discuss the potential for the project to impact habitat and did consider disturbance to the wolf.

As stated previously, the recently withdrawn Forest travel management plan was appropriately considered under cumulative effects because that project is expected to be implemented in the reasonably foreseeable future. FEIS at 201.

General/Miscellaneous Topics

Appellant Statement #91: Appellant objects to recommendations for more Wilderness, more Wilderness Study Areas, roadless areas, and expanded wildlife corridors, which attracts more visitors, resulting in keeping animals on the run. Appellant states that more roadless areas will not stop predator kills. CH at 2. Appellant further objects to prescribed burning in these areas, stating that these burns result in mortality of thousands of small wildlife, chipmunk, golden mantled squirrels, flying squirrels, and other species that run to hide from humans. CH at 2.

Response: I find that the appellant’s objections are an opinion and that neither the proposed action nor the decision considers changes in existing land allocations, including Wilderness, which can only be declared by Congress. Prescribed burning is not proposed in these land allocations, FEIS at 512-528.

Appellant Statement #92: Appellant states that his input has been totally disregarded. SOAR at 1.

Response: I find that the comments submitted by the appellant were considered prior to the Responsible Official's decision, and that the appellant's assertion that the ROD appears to have been written to avoid appeal by environmental groups is an opinion and is not a violation of law, regulations and policies.

The regulation at 40 CFR 1503.1 requires the agency to invite comment on a DEIS, while the regulation at 40 CFR 1503.4 and 36 CFR 215.6(b)(1) requires the agency to consider comments submitted on a DEIS prior to making a decision. The response to comments section of the FEIS (FEIS Appendix C at 603, 621, 624, 626, and 636) gives specific responses to Dick Fleming, Stewards of America's Resources comments and concerns regarding this vegetation management project.

Appellant Statement #93: Appellant states that before issuing its final decision, the Forest Service is prohibited from taking any action that "limit[s its] choice of reasonable alternatives" identified in the decision-making process, including prohibition of "commit[ting] resources" which would prejudice the Forest Service's selection of alternatives. Appellant states that with Snow Basin, the Forest Service began advertising the Puzzle timber sale in November of 2011 (approximately), which was several months after the DEIS comments were due and before the environmental analysis of the project was completed. HCPC at 21. Appellant asserts that by pre-advertising the sale, the Forest built expectations from potential bidders, which pressures the agency into a decision that facilitates this logging project. HCPC at 21.

Response: I find that the action taken by the Forest Service to issue a pre-advertisement for a sale potentially associated with the Snow Basin FEIS and ROD is consistent with Forest Service Manual direction. In addition, I find that the appellant's assertion that pre-advertising would pressure the agency into a decision facilitating logging is an opinion and is not a violation of law, regulations and policies.

The Forest Service Manual (FSM) at 2432.21a states that pre-implementation activities may occur prior to the NEPA project decision, and that pre-advertisement to alert prospective purchasers with sufficient information about a proposed sale is permitted. As stated in the preliminary advertisement, the intent was to allow interested parties to review the proposal on the ground before the winter snows prohibited this opportunity. Thus, no resources were committed that would prejudice the Forest's selection of an alternative.

Appellant Statement #94: Appellant states that the FEIS violates NEPA by failing to consider the direct, indirect, and cumulative environmental impacts to aquatic and other resources from all proposed activities, plus continued grazing and herbicide use. HCPC at 67 and 68; LOWD at 6, 7, 27, 29 and 30. Appellant states that the disclosure and analysis on the cumulative impacts of the action alternatives are inadequate and fail NEPA's requirement for a high quality scientific analysis that would satisfy the "hard look" standard as required by case law and 40 CFR 1502.24 and 40 CFR 1500.1(b). LOWD at 28 and 29.

Response: I find that the agency considered direct, indirect, and cumulative environmental impacts and methodology in compliance with the regulations.

The regulation at 40 CFR 1502.24 requires the agency to insure professional and scientific integrity of analysis in an EIS, including methodology. Discussions of methodology can be found in the following locations: vegetation (FEIS at 70,75); fuels (FEIS at 88); soils (FEIS at 101); aquatics (FEIS at 117); wildlife (FEIS at 188); plants (FEIS at 269); invasive species (FEIS at 286); scenery (FEIS at 312-313); recreation (FEIS at 330); wild and scenic rivers (FEIS at 343); and potential wilderness – undeveloped areas inventory (FEIS at 512).

Additionally, the direct, indirect, and cumulative environmental impacts to aquatic and other resources from all proposed activities are disclosed in the FEIS at 70-84, 89-98, 102-107, 116-178, 184, 192-280, 285-293, 297-299, 312-322, 330-335, 345-372 and 380-384. The FEIS at 147 discusses the effects of ongoing noxious weed treatments including herbicide use. Effects of grazing are disclosed in the FEIS at 105, 117, 119, 120, 138, 145, 146, 154, 155, 165-173, 193, 194, 196, 198, 201, 204, 205, 210, 225, 231, 237, 246, 254-257, 261-279, 286, 292, 296-299, 348, 353, 354, 383, 384.

Specific to appellant's assertion regarding an inadequate cumulative effects analysis, the following resources documented how past, present, and reasonably foreseeable future actions that may overlap in time and space to contribute to a cumulative effect were considered: vegetation (FEIS at 73-83); fire/fuels (FEIS at 90-97); soils (FEIS at 102-107); aquatics (FEIS at 130-184); wildlife (FEIS at 192-264); threatened, endangered and sensitive plant species (FEIS at 274-280); invasive species (FEIS at 290-293); rangeland (FEIS at 298-299); visuals (FEIS at 315-322); recreation (FEIS at 331); wild and scenic rivers (FEIS at 344); social and economics (FEIS at 353-357); transportation (FEIS at 369-371); wilderness, roadless, and potential wilderness (FEIS at 383). As an example, the wildlife cumulative effects analysis specifically identified those activities and effects that would overlap in time and space (see FEIS at 202). In a more specific example, the effects of expected 2012 harvest of the Skookum Timber Sale were disclosed within each of the species sections where effects were expected to occur.

In summary, the methodology and disclosure of impacts were considered for the resources within the environmental consequences section of the Snow Basin Vegetation Management Project.

Appellant Statement #95: Appellant states that the Forest has not demonstrated how the Snow Basin project is following the tenets outlined in the MA 20-21 document and states that the Forest has failed to involve the interested stakeholders who developed this project, thus highlighting the lack of a true collaborative effort. HCPC at 87.

Response: I find that the Forest Service did consider the concepts included in the MA 20-21 document, and provided opportunities to involve interested stakeholders through scoping.

The regulations at 40 CFR 1501.7(a)(1) requires the agency to invite participation of affected government agencies, tribes, and other interested persons. The FEIS at 11-12 summarizes scoping and public involvement efforts, which included mailings, public notifications, newspaper articles, public meetings, and field trips.

The MA 20-21 document has no legal basis or authority. Regardless, the connectivity section of the FEIS at 215 refers to the wildlife report at 49-50 (Appeal Record), which explains how the Forest Service considered the Pine Eagle Consensus Group MA 20-21 document. In addition, the report explains that the 1993 Regional Forester's Forest Plan Amendment #2 accomplished what the Consensus Group had proposed.

Appellant Statement #96: Appellant states that the “FEIS violates NEPA’s fundamental requirement that the necessary public analysis be in the EIS itself or its appendices” because the agency arbitrarily included some of its detailed analysis regarding impacts on certain resources in the FEIS, but excluded other equally important analysis, such as biological evaluations regarding wildlife and plants and the biological assessment from the EIS and its appendices, in violation of 40 CFR 1502.21 and 40 CFR 1502.18. Appellant asserts that the public cannot comment or appeal on analyses that they have not seen. HCPC at 87; LOWD at 11, 12, 13, 14 and 57. Appellant states that these documents were readily available in electronic format and could have been included as electronic appendices to the FEIS or posted to the Forest’s website; however, the agency did not do this, thus violating NEPA and the APA. HCPC at 87; LOWD at 12, 13, and 14.

Response: I find that the Forest Service notified the appellant of the availability of all relevant information and provided contact information for accessing all documents.

The FEIS at xi and the DEIS at ii provided the address of the Ranger District office and an invitation to review any of the documentation associated with the analysis. Additionally, the letter announcing the availability of the ROD and Final EIS for the Snow Basin Vegetation Management Project provided a contact, address and phone number for additional information. The FEIS incorporated the biological evaluations directly into the document, thus it was not necessary to repeat the information in an appendix. The regulation at 40 CFR 1502.21, as cited by appellant, also states that incorporation by reference is allowed to “cut down on bulk.” The biological assessment was referenced in the FEIS at 385 and in the ROD at 16, and was made available upon request, as stated above.

Appellant Statement #97: Appellant states that the “Forest Service has failed to show this large and extensive logging project will not have negative impacts to terrestrial and aquatic organisms.” The FEIS and ROD are arbitrary, capricious, inadequate and violate NEPA, the ESA, NFMA, CWA, the APA, and their implementing regulations. HCPC at 88; LOWD at 7, 8 and 59.

Response: I find that the Forest Service disclosed the potential impacts to terrestrial and aquatic species in the FEIS for the project, and that the appellant’s descriptive statement regarding the FEIS and ROD is a general opinion not supported by specific facts.

The regulation at 40 CFR 1502.16 requires the agency to consider the environmental impacts of the alternatives including the proposed action. The FEIS at 184 summarizes the effects determinations for aquatic species. The FEIS at 212 summarizes the effects determinations for threatened, endangered, and sensitive terrestrial species, and a more detailed discussion of effects is disclosed in Chapter 3 of the FEIS at 157-175 and 186-268. The effects of management indicator species (terrestrial) are disclosed in the FEIS at 217-254. The effects to landbirds, including neotropical migratory birds, are disclosed in the FEIS at 258-262. Potential impacts to water quality are addressed at 109-157. These disclosures meet the requirements under NEPA, ESA and the CWA. In addition, the ROD documents compliance with NFMA. ROD at 19-21. All administrative policies and procedures were followed, and the Responsible Official documented her rationale for her decision, thus complying with the APA. Thus, I find that the Forest adequately documented that the FEIS and ROD were not arbitrary or capricious and that the documentation was adequate to determine compliance with applicable laws, regulations and policies.

Appellant Statement #98: Appellant states that significant differences between the DEIS and FEIS were confusing and hard to track (including changes to the analysis for American marten), preventing the

public from adequately commenting on the proposed action and effects, thus violating 40 CFR 1502.9(a). LOWD at 14 and 15; LOWD at 51.

Response: I find that the Forest Service adequately described the changes between the DEIS and FEIS, and that the changes did not constitute a need for a supplement to the DEIS.

The regulation at 40 CFR 1502.9(c)(1) requires the agency to prepare supplements to the DEIS if there are substantial changes in the proposed action, or significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts. The FEIS at 1-2 and the ROD at 13 describe the changes made between the DEIS and the FEIS. Many of the changes were editorial, clarifications or minor modifications. One of the changes was to eliminate the regeneration units from alternatives 2, 3, and 4. This acreage was a small percentage of the total treatment acres and does not constitute a substantial change in the proposed action.

Appellant Statement #99: Appellant states that the FEIS is incomprehensible because of the use of excessive jargon, acronyms, and undefined or misleading terms (particularly when addressing forest health, diversity, and logging methods), in violation of NEPA. LOWD at 15 and 16.

Response: I find that the document utilized plain language to the extent practical and included a glossary for complex terminology and an acronym table.

The regulation at 40 CFR 1502.8 requires use of plain language in writing environmental impact statements and 40 CFR 1502.10 requires the agency use a standard format unless there is a compelling reason to do otherwise. The FEIS follows the standard format outlined in the regulations. In addition, the FEIS contains an acronym table at 408-411 and a glossary at 412-425 for further clarity.

Appellant Statement #100: Appellant states that the Forest inappropriately analyzed indirect and cumulative effects of the Wallowa-Whitman Travel Management Plan on the project area, which was recently withdrawn. Appellant states that because the travel management plan is no longer in effect, the Forest Service cannot rely on the effects of that plan in decreasing open road density and improving road conditions. LOWD at 36 and 37. In particular, appellant states that impacts to aquatic habitat, the Columbia spotted frog and Inland tailed frog will no longer be mitigated by the travel management plan, thus the effects of the Snow Basin project will be greater than anticipated. LOWD at 36 and 37.

Response: I find that the Forest appropriately analyzed travel management planning as a reasonably foreseeable future action.

The regulation 40 CFR 1508.7 requires disclosure of impacts on the environment for past, present and reasonably foreseeable future actions. The FEIS at 153 identified the Wallowa-Whitman National Forest Travel Management Plan as a reasonably foreseeable future activity. The regulation at 36 CFR 212, Subpart B requires each national forest to designate those roads, trails and areas open to motor vehicles. Regardless of the Forest's withdrawal of the travel management plan decision, they are required to comply with the travel management rule and make a decision on motor vehicle use. As such, a travel management plan is a reasonably foreseeable future action. In addition, the proposed action for the Forest's travel management plan remains as described in the Forest's Schedule of Proposed Action (SOPA).

Appellant Statement #101: Appellant states that the release of the Snow Basin project just before the 2013 release of the revised Forest Plan is not prudent, and that this large scale project should be analyzed under the most recent forest planning guidance that reflects “current regional reality.” LOWD at 59.

Response: I find that the appellant’s objection to the timing of the release of the Snow Basin project is an opinion, and is not based on any procedural rules.